

DOCUMENT RESUME

ED 046 210

40s

EC 031 574

AUTHOR Silverman-Dresner, Toby; Guilfoyle, George R.
 TITLE The Deaf Child's Knowledge of Words: Volume I. Final Report.
 INSTITUTION Lexington School for the Deaf, New York, N.Y.
 SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Research.
 BUREAU NO BR-7-0419
 PUB DATE Aug 70
 GRANT OEG-0-8-000419-1792
 NOTE 489p.
 EDRS PRICE EDRS Price MF-\$0.65 HC-\$16.45
 DESCRIPTORS *Aurally Handicapped, *Exceptional Child Research, Reading Tests, *Vocabulary, Vocabulary Development, *Word Recognition

ABSTRACT

To assess the reading vocabulary knowledge of deaf children, a vocabulary pool of 14,852 words was reduced to 7,300 words. These words were fed into a computer to produce 73 sets of 100 randomly selected words each. The 73 sets were converted into vocabulary tests which were randomly administered, two per child, to 13,207 deaf students, ages 7-17 years, in 89 schools for the deaf in the United States. Results indicated that girls, in general, seem to know more words than do boys, and that older children seem to know more words in common than do younger ones. The major portion of the report consists of a list of the 7,300 words, with definitions, and with the percentages of children in each of five age groups who knew the word. A summary of words known by 67% of deaf children at the various age levels is also presented. Appended are statistical characteristics, such as times administered and mean scores, of the 73 test forms, and statistics on the frequency of occurrence and percentage of correct responses for each of the 7,300 words for the total group of subjects and for just the 7-year-old subjects. Appended information continues in Volume 2 of the report (see EC 031 575), which includes an alphabetical list of the test forms and instructions to teachers for test administration. (Author/KW)

EDO 46210

FINAL REPORT

Project No. 7-0419

Grant No. OEG 0-8-000419-1792

THE DEAF CHILD'S KNOWLEDGE
OF WORDS

Toby Silverman-Dresner, Ph.D.

George R. Guilfoyle, Ph.D.

Lexington School for the Deaf

26-26 75th Street

Jackson Heights, N. Y. 11370

August 1970

U.S. DEPARTMENT OF HEALTH,
EDUCATION, AND WELFARE

Office of Education
Bureau of Research

1 Vol. I of II

ED0 46210

BR 7-0419

PA 40

EC

Final Report

Project No. 7-0419
Grant No. OEG 0-8-000419-1792

The Deaf Child's Knowledge of Words

Toby Silverman-Dresner, Ph.D.
George R. Guilfoyle, Ph.D.

With the assistance of:

Penny A. Socher, M.A.
Judith A. Jonas, M.A.

Lexington School for the Deaf
Jackson Heights, N. Y.

August 1970

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

2

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

EC031574

TABLE OF CONTENTS

Book I

Acknowledgements

A Note to the Teacher who uses the Vocabulary List

Summary

Introduction

I. The Problem

II. Methods and Procedures

A. Preparation of Vocabulary Tests

B. Selection of Sample

C. Administration of Test Forms

III. Results and Discussion

A. Analysis of Data

B. Vocabulary Knowledge

C. Implications for Future Research

Summary of Words Known by 67% of Deaf Children at various age levels.

References

APPENDIX

Vocabulary List (pp.1-293)

Characteristics of Seventy-Three Test Forms (pp. 294-303)

7-Year-Olds and Totals (pp. 1-150)

Book II

APPENDIX (Continued)

Alphabetical List of Test Forms (pp. 1-743)

Teacher's Kit:

Letter to Teachers

Instructions for Test Administration

LIST OF FIGURES AND TABLE

Figure 1. Number of Times Used

Figure 2. Mean Number of Correct Responses

Figure 3. Size of Standard Deviation

Figure 4. Mean Number of Correct Responses

Figure 5. Age in Years

Table 1. Words Defined Correctly by 60% or More of Several Samples of Eight- and Nine-Year-Old Deaf Students

ACKNOWLEDGEMENT

The author would like to thank the students and faculty of the following schools for their participation in this study.

ALABAMA

Alabama Institute for the Deaf and Blind, Talladega

ARIZONA

Arizona State School for the Deaf and Blind, Tucson

ARKANSAS

Arkansas School for the Deaf, Little Rock

CALIFORNIA

California School for the Deaf, Berkeley

California School for the Deaf, Riverside

Marlton Avenue Elementary School, Los Angeles

COLORADO

Colorado School for the Deaf and Blind, Colorado Springs

CONNECTICUT

American School for the Deaf, West Hartford

Mystic Oral School for the Deaf, Mystic

DELAWARE

Margaret S. Sterck School for the Hearing Impaired, Newark

DISTRICT OF COLUMBIA

Kendall School for the Deaf, Washington

FLORIDA

Florida State School for the Deaf and Blind, St. Augustine

GEORGIA

Georgia School for the Deaf, Cave Spring

HAWAII

Diamond Head School for the Deaf, Honolulu

IDAHO

Idaho School for the Deaf and Blind, Gooding

ILLINOIS

Elim Christian School for the Exceptional Child, Palos Heights

Illinois School for the Deaf, Jacksonville

INDIANA

Indiana School for the Deaf, Indianapolis

IOWA

Iowa School for the Deaf, Council Bluffs

KANSAS

Institute of Logopedics, Wichita

Kansas School for the Deaf, Olathe

KENTUCKY

Kentucky School for the Deaf, Danville

Lexington Deaf Oral School, Lexington

LOUISIANA

Chinchuba Institute for the Deaf, Marrero

Louisiana State School for the Deaf, Baton Rouge

State School for the Deaf, Baton Rouge

MAINE

Governor Baxter State School for the Deaf, Portland

MARYLAND

Maryland School for the Deaf, Frederick

MASSACHUSETTS

Beverly School for the Deaf, Beverly

Boston School for the Deaf, Randolph

Clarke School for the Deaf, Northampton

Horace Mann School for the Deaf, Roxbury

MICHIGAN

Michigan School for the Deaf, Flint

MINNESOTA

Minnesota School for the Deaf, Faribault

W. Roby Allen School, Faribault

MISSISSIPPI

Mississippi School for the Deaf, Jackson (N. Green Capers Avenue)

Mississippi School for the Deaf, Jackson

MISSOURI

Central Institute for the Deaf, St. Louis

Gallaudet School for the Deaf, St. Louis

Missouri School for the Deaf, Fulton

St. Joseph Institute for the Deaf, University City

MONTANA

Montana School for the Deaf and Blind, Great Falls

NEBRASKA

Nebraska School for the Deaf, Omaha

NEW HAMPSHIRE

Crotched Mountain School for the Deaf, Greenfield

NEW JERSEY

Bruce Street School, Newark

Marie H. Katzenbach School for the Deaf, W. Trenton

NEW MEXICO

New Mexico School for the Deaf, Santa Fe

NEW YORK

Lexington School for the Deaf, New York

Mill Neck Manor, Lutheran School for the Deaf, Mill Neck

New York State School for the Deaf, Rome

Rochester School for the Deaf, Rochester

School for the Deaf, Junior High School 47-M, New York

St. Francis de Sales School for the Deaf, Brooklyn

St. Joseph's Classes for Children with Hearing Impairment,
Lake Ronkonkoma

St. Joseph's School for the Deaf, New York

St. Mary's School for the Deaf, Buffalo

Suffolk School for Deaf Children (Holy Cross Lutheran Church), Commack

Yeshiva Institute for the Hard of Hearing and Deaf, Brooklyn

NORTH CAROLINA

Eastern North Carolina School for the Deaf, Wilson

North Carolina School for the Deaf, Morganton

NORTH DAKOTA

North Dakota School for the Deaf, Devils Lake

OHIO

Alexander Graham Bell School, Cleveland

Ohio School for the Deaf, Columbus

St. Rita School for the Deaf, Evandale-Cincinnati

OKLAHOMA

Oklahoma School for the Deaf, Sulphur

OREGON

Hosford Day School, Portland

Oregon State School for the Deaf, Salem

Tucker-Maxon Oral School, Portland

PENNSYLVANIA

Archbishop Ryan Memorial Institute for the Deaf, Philadelphia

De Paul Institute, Pittsburgh

Pennsylvania School for the Deaf, Philadelphia

Western Pennsylvania School for the Deaf, Pittsburgh

RHODE ISLAND

Rhode Island School for the Deaf, Providence

SOUTH CAROLINA

South Carolina School for the Deaf and the Blind, Spartanburg

SOUTH DAKOTA

South Dakota School for the Deaf, Sioux Falls

TENNESSEE

Tennessee School for the Deaf, Knoxville

TEXAS

Pilot School for the Deaf, Dallas

School of Listening Eyes, Wichita Falls

Texas School for the Deaf, Austin

UTAH

Utah Schools for the Deaf and Blind, Ogden

VERMONT

The Austine School for the Deaf, Brattleboro

VIRGINIA

Virginia State School for the Deaf, Hampton

Virginia School for the Deaf and Blind, Staunton

WASHINGTON

Edna E. Davis School, Spokane

Washington School for the Deaf, Vancouver

WEST VIRGINIA

West Virginia School for the Deaf and Blind, Romney

WISCONSIN

St. John's School for the Deaf, Milwaukee

Wisconsin School for the Deaf, Delavan

WYOMING

Wyoming School for the Deaf, Casper

A NOTE TO THE TEACHER WHO USES THE VOCABULARY LIST

The words in the vocabulary list should be used exclusively for rewriting existing reading material and for constructing new materials. The words should not be regarded as goals to be attained, since the list is simply a description of what words the average deaf child of a given age knows. Neither an individual child's performance, nor the performance of an entire class or school should be compared to the percentages reported here, since school, regional, and individual differences are bound to exist. In the final analysis, the individual teacher must decide which words to teach, depending upon the children's age and the subject matter. The list given here can provide hints on which words can or cannot be profitably taught, but nothing more.

Summary

In an attempt to assess the reading vocabulary knowledge of the deaf child, an initial vocabulary pool of 14,852 words was reduced to 7300 words. These words were fed into a computer which produced 73 sets of 100 randomly selected words each. The sets were then converted into 73 vocabulary "tests" and administered to 13,207 deaf students between the ages of seven and seventeen years, from 89 schools for the deaf in the United States. A preliminary analysis of the results indicates that girls, in general, seem to know more words than do boys, and that older children seem to know more words in common than younger ones. The main portion of the report is given over to a list of the 7300 words, with their definitions, and with the percentages of children in five age groups who responded correctly to them. The appendix includes all words with their definitions and decoys, for those instructors who wish to test children on particular words.

I. The Problem

The major source of visual information for the deaf child is in the form of printed materials, such as textbooks, children's magazines and children's newspapers. Consequently, skill in reading is far more crucial for him than for his hearing peer, where the sources of information include auditory as well as visual. Yet the deaf child is far below the hearing child in reading comprehensions (Furth, 1966). These two facts: the unusual importance of printed material for the deaf child and his unusually poor comprehension of it, makes it imperative that the process of reading be better understood.

One of the variables involved in reading comprehension is vocabulary level (Seashore and Eckerson, 1940; Klare, 1963). There is, however, little systematic information on the reading vocabulary of the deaf child. However, the most important reason for obtaining more systematic information on the deaf child's reading vocabulary is the fact that virtually all of the reading materials used in schools and classes for the deaf have been written for the normally hearing child. Such materials are based upon presumed age-graded vocabulary lists obtained from hearing children. The educator of the deaf who uses this standard reading material finds it necessary to continually simplify the vocabulary of these texts. If, for example, she wishes to teach a fourth grade history unit on the founding of our country, she must first rewrite a large portion of the text, as well as teach a number of new words (e.g., "taxation without representation"). The task of continually editing such material places an unnecessary burden upon these teachers. A more efficient solution would be to construct reading materials based upon the actual reading vocabulary knowledge of the deaf child.

Vocabulary lists for hearing children come from three sources: 1) 3000 Familiar Words (Dale & Chall, 1948), 2) Children's Knowledge of Words (Dale & Eicholz, 1960), 3) The Teacher's Word Book of 30,000 Words (Thorndike & Lorge, 1944). The Dale-Chall List was created by presenting lists of words to a sample of fourth-grade children who were asked to check off the words that they "knew." Vocabulary tests were then constructed from a pool of these words and subsequently given to children at various grade levels. The level of each word was then defined to be the grade at which 67% of its members chose the correct definition. A more comprehensive list of over 17,000 words was later compiled by Dale and Eicholz (1960). In the case of the Thorndike-Lorge Word Count, vocabulary level is presumed to be related to the frequency of occurrence of words in various types of printed material.

Thus the object of the present study is to reorganize the bulk of the Dale-Chall and Dale-Eicholz vocabulary lists in order to arrive at a set of age-graded vocabulary lists reflecting the actual reading vocabulary of the deaf child at various ages.

II. Methods and Procedures

A. Preparation of Vocabulary Tests

1. Initial Word Pool.

The Dale-Chall List of 3000 familiar words (Dale & Chall, 1948), involving grades one, two and three, in conjunction with the Fourth- and Sixth-Grade Lists from the Children's Knowledge of Words (Dale & Eicholz, 1960) provided an initial pool of 14,852 words. Of these, certain words were automatically screened out. They included all of the following word classes: hyphenated words (e.g., passer-by, pell-mell), interjections (e.g., ah, oh), contractions (e.g., let's, can't), sound words (e.g., moo, baa), certain word variants (e.g., "Do" was kept, while "did" was eliminated), and brand names (e.g., Kodak, Kleenex). In addition, several words appeared on more than one list. To which list a particular word was assigned depended upon which grade produced at least 61% correct identifications; this being one standard deviation below the usual cutoff value of 67%.

2. Construction of Definitions.

Definitions were then written for the remaining words. Four dictionaries were used. The primary source was the Thorndike-Barnhart Beginning Dictionary (Thorndike & Barnhart, 1964) since it was the lowest grade level dictionary available at the time. The remaining sources in order of importance were the Rodale Synonym Finder (Rodale & Staff, 1961), the Webster's Seventh New Collegiate Dictionary (1963) and the Roget's International Thesaurus (3rd Ed., 1962). Thus, for each word a number of possible definitions were available. Several criteria were used in deciding upon the best one. The best definition was one:

- a) that best preserved the definition used by Dale and his associates
- b) that contained words either at the same or at a lower grade level than that of the stimulus word. For example, "obtain" is listed as a sixth-grade word; its best definition is "get" which is on the Familiar Word List, that is, the list appropriate for first-, second- and third-grade children
- c) that was as short as possible. For example, "owner" (from Rodale) is used as the best definition of "landlord" in lieu of the longer one ("person who owns buildings or lands that he rents to others") given in the Thorndike-Barnhart Dictionary. Where a long definition was unavoidable, extraneous words were eliminated. For example, the definition of "knapsack" as "a leather or canvas bag for clothes, equipment, etc...carried on the back" was shortened to "bag carried on the back."
- d) that was general rather than specific. For example, rather than defining "rat" as "small animal" the more general definition of "animal" was used.

Words which did not meet the above criteria were eliminated.

Since no definitions were provided for the Familiar Words, the most frequently occurring synonym appearing in the Rodale Synonym Finder was chosen. In some cases, however, the most frequent synonym was not one that could be expected to be known by a child. In those cases, an alternate synonym was selected. For example, "last" appears on the Familiar List. The most frequent synonyms are "model, shape, pattern, form, etc..." (Rodale, p. 676). However, three psychologists agreed that this meaning would probably be less familiar to a child in one of the first three grades than would the alternate meaning, "in the rear, in back of," (Ibid., p. 676) which was used instead.

3. Construction of Decoys.

The remaining words with their definitions were alphabetized and broken down into nine books of letters (e.g., Book One contained all words beginning with the letters "a" and "b"). Since the test format was of the multiple choice type, it was necessary that each word be provided with three decoys (incorrect definitions) in addition to its definition. Beginning with the letter "a" in Book One, each word received decoys from the definitions of words in two of the remaining eight books. The definitions were randomly selected alternately from each of the two books. For example, all decoys from words in Book One were obtained from definitions of words in Book Three and Book Seven; all decoys for Book Two came from definitions appearing in Book One and Book Four, etc.... The decoys so selected were retained only if they met the following criteria:

- a) All decoys had to be on the same or at a lower grade level than that of the stimulus word.
- b) All decoys had to contain approximately the same number of words (plus or minus one word) as did the correct definition.
- c) In those cases where part of the stimulus word appeared in the correct definition (e.g., bartender), at least one of the three decoys had to contain the same part. In some cases this meant inventing a decoy by adding a suffix such as "ing" or "ed" to the root word. (This procedure has been used by Dale and his associates.)
- d) Where the stimulus word contained suffixes such as "ly" or "ed," or prefixes such as "mis" or "pre," at least one decoy preserved this form.
- e) Where the correct definition began with the same letter as the stimulus word, at least one decoy began with this letter.

4. Construction of Test Forms.

The final pool of 7300 words, together with their definitions and decoys (the position of the correct definition was randomly varied) was fed into a computer programmed to generate 73 sets of 100 randomly selected items each. These sets of items were then converted into 73 typewritten "tests." Each test consisted of a cover page and 10 test pages. The cover page consisted of a set of simplified instructions, a code designating the particular set of 100 items (i.e., A-Z, AA-ZZ, AAA-UUU), and a place for indicating the subject's age and sex.

B. Selection of Sample

Letters requesting cooperation in the study were mailed to all schools for the deaf in the United States listed in the Directory of the American Annals of the Deaf for the years 1966 and 1967. Of these, 89 schools actually participated in the study.

C. Administration of Test Forms

Packages of test forms, together with teacher instruction sheets (see Appendix) were mailed to all schools prior to the day of testing. On the appointed day at each school a tester appeared, met with the teachers, distributed the test forms, and explained the procedures for instructing the students and for proctoring them. The tester also spent time answering questions from the teachers, and during the course of the day, moved throughout the school giving assistance to the teachers when it was needed.

The actual testing was done by the classroom teacher, who instructed her pupils and proctored their responses. All children responded to two forms (i.e., 200 words), and were given a break between forms. Care was taken to insure against the possibility of a child receiving two copies of the same form. In addition, tests were packed and distributed in such a way that few if any of the same forms were administered to a particular age group in a particular school, depending upon the size of the school population.

At the conclusion of the testing day, all tests were returned, repacked and mailed back to the Research Department of the Lexington School where they were transmitted to a computer center for scoring and analysis.

III. Results and Discussion

A. Analysis of Data

All tests were searched for identification data (age and sex). Those tests on which an age was not indicated were automatically discarded. Approximately 2500 tests were lost because of this failure. However, tests which failed to include sex identification were included for use in the word analysis since no distinction was made between boys and girls. The remaining 26,414 tests were scored by machine, and the percentage of correct responses (uncorrected for guessing) to each word was obtained, arranged alphabetically: 1) over all age groups, 2) separately for each age, and 3) by two-year age groups. The bulk of the data is drawn from responses given by children aged eight through 17 years. Data on seven-year-old children, and totals for all ages is given in the Appendix.

Data was also obtained on the age and sex distribution of the 73 vocabulary forms. This includes the number of children (boys and girls separately and together) at each age taking each form. The mean number of correct responses, with accompanying standard deviation (SD) and standard error of measurement (SE) is also given for each form.

B. Vocabulary Knowledge

An extensive discussion of the tabulated data is beyond the scope of this report inasmuch as the word list itself provides the reader with the information in which he is most interested, namely what percentage of children of various ages know a particular word. More refined analysis of these data, including a breakdown of the words by class and level of abstraction is left to future research.

In order to discover exactly how many of the 7300 words are "known" by deaf children of various ages, ideally each child should be administered the complete pool of words. Obviously this is an impossible procedure. Indeed, the logistics involved in test administration are such that the maximum number of words per child could not exceed two hundred. This meant, in turn, that only small samples of children in each age category could respond to particular words. These samples are, of course, presumed to be representative of their age groups inasmuch as they are, for all practical purposes, random.

The actual number of times that each of the 73 forms was used is given in Figure 1. While the distribution is somewhat negatively skewed, it is apparent that most forms were used over 300 times each; more specifically, 45 forms were used between 360 and 399 times.

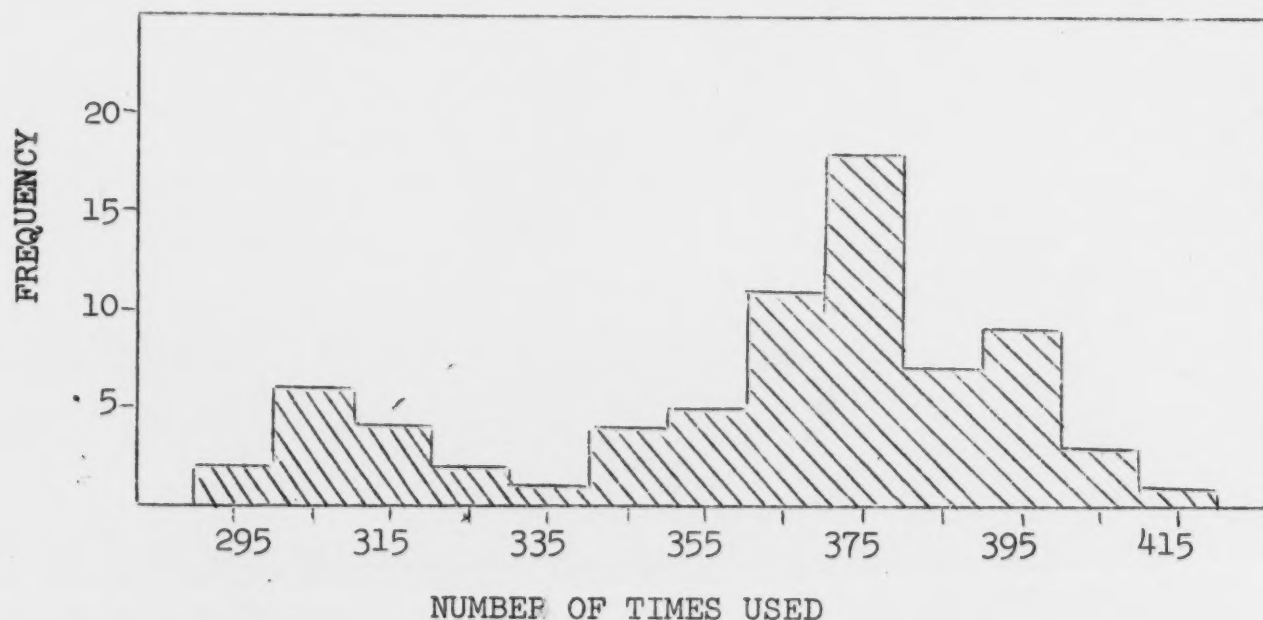


Fig.1. Number of times each vocabulary test form was used.

Figures 2 and 3 are related to the comparability of the test forms themselves. Figure 2 shows the distribution of the mean number of correct responses to each of the 73 forms, and Figure 3 gives the distribution of associated standard deviations (SDs). Both distributions are relatively narrow and symmetrical. In the case of the means (see Figure 2), discounting the one extreme case, the means extend from 35.5 to 42.5, a range of only seven points. This coincides with the range of SDs in Figure 3. In this latter case, however, the bulk of the SDs (56) lie between 16.5 and 19.5.

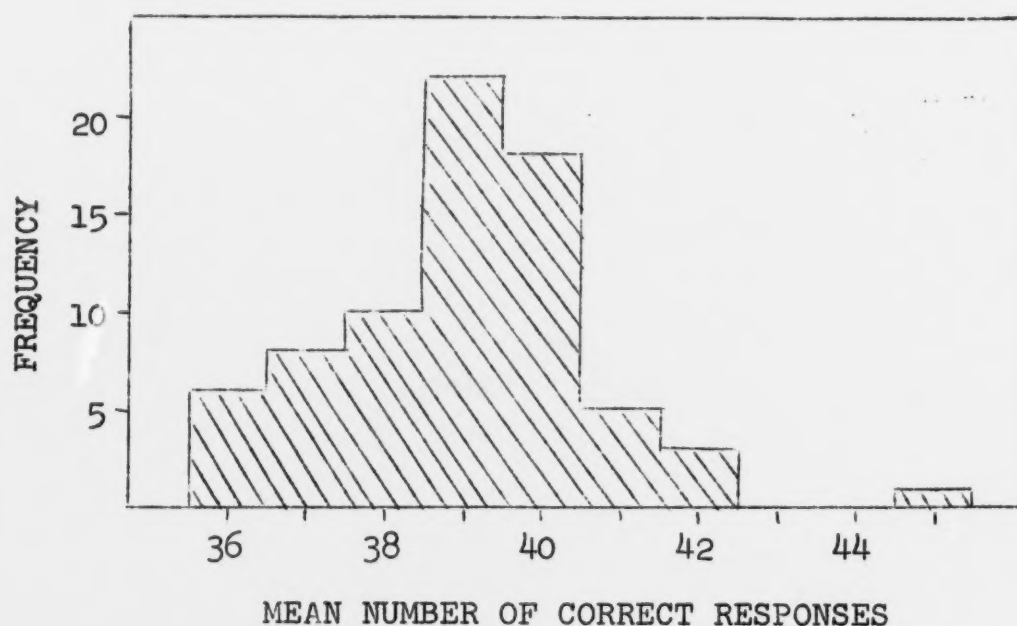


Fig. 2. Mean number of correct responses to each of 73 vocabulary test forms.

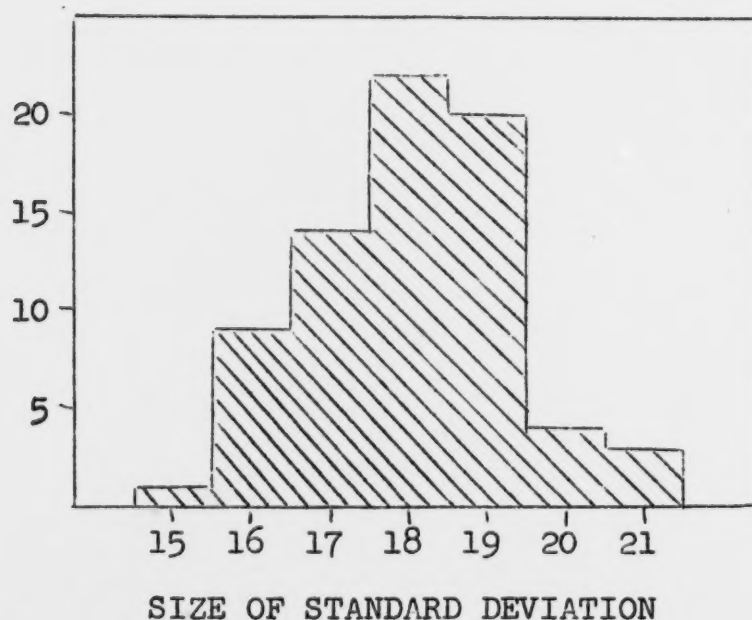


Fig. 3. Distribution of standard deviations associated with mean number of correct responses to each vocabulary test form.

Aside from considerations of the test forms themselves, the two most striking results are the age and sex differences which occurred. Regarding the sex differences, Figure 4 shows the distribution of the mean number of correct responses of boys and girls separately. It seems highly likely (although this was not subjected to a statistical test) that girls know more words than do boys, an outcome which is consonant with results obtained with hearing children.

Regarding age differences, Figure 5 shows the number of words correctly identified by 67% or more students at five age groups. The data is plotted in log units. The rate of change in number of words correctly identified is highest at the younger age groups, and levels off as the children grow older. The actual number of correct responses for each age group beginning with the eight and nine year olds is: 7, 89, 504, 1223, and 2035. In looking at these figures, however, it should not be concluded that, for example, the eight and nine year old

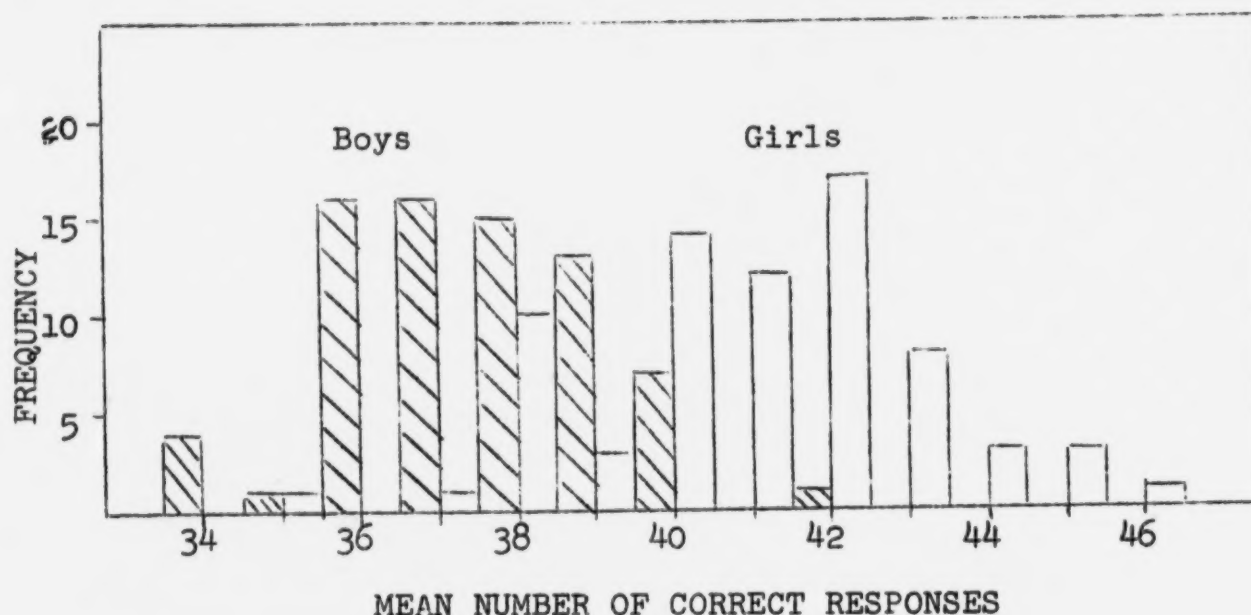


Fig.4. Mean number of correct responses to all forms separately for boys and girls.

deaf student knows only seven words, but only that these eight and nine year old students know very few of the same words. As they grow older, however, the number of commonly known words increases, until at the ages of 16 and 17 years, the pool exceeds 2000.

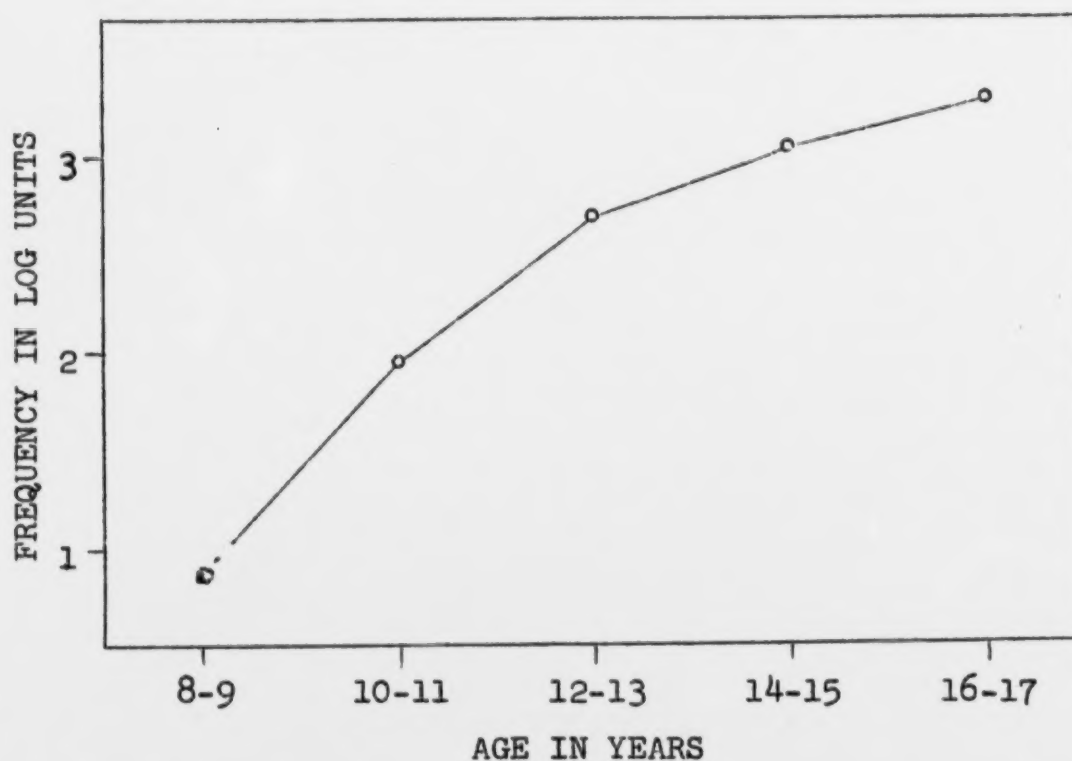


Fig. 5. Number of words (in log units) to which 67% of each age group responded correctly.

Another point to be borne in mind in interpreting these results is that the absolute number of words considered "known" is determined in part by the cutoff value; using a lower value would result in finding more words known. While in theory this argument is valid, in the case of the eight and nine year old group, it does not seem to matter much. Lowering the cutoff to 60% results only in a pool of 25 words. They are listed in Table 1, together with the number of students responding to them, and the percent responding correctly. Some of these percentages are probably spuriously high. "Fifteen," for example, is presumably known by 63.2%, but "five" and "ten" are known only by 25% and 45% respectively. However, the appearance of most of the words on the list makes sense, particularly the color names.

TABLE 1

Words Defined Correctly By 60% Or More Of Several Samples Of
Eight And Nine Year Old Deaf Students

WORD	SAMPLE SIZE	PERCENT CORRECT	WORD	SAMPLE SIZE	PERCENT CORRECT
*Bad	68	67.6	Mailbox	68	66.2
Banana	80	60.0	*Mammy	58	69.0
*Blue	49	75.5	October	71	60.0
*Brown	79	69.6	*Red	49	73.5
Bumper	65	61.5	Sad	45	64.4
Bunny	65	63.1	See	65	63.1
Duck	67	61.2	*She	80	67.5
Fifteen	49	63.3	Us	74	60.8
Gray	60	66.7	White	59	64.4
Green	41	65.9	Wind	65	63.1
Hot	80	61.3	Yellow	63	63.5
Kitty	60	60.0	Zebra	64	60.9
*Look	45	68.9			

*Words known by 67% or more of a given sample.

C. Implications for Future Research

The fact that the number of words known in common by deaf children increases steadily with age despite the fact that the bulk of these children never achieve a reading competence beyond an elementary level suggests that the breakdown of the reading process is more likely attributable to grammatical problems than to vocabulary deficiencies. Exactly what these grammatical problems are and how best they can be overcome is crucial to the solution of the problem of the deaf reader. What is needed is an investigation similar to the present one but smaller in scope (i.e., employing stratified random sampling) in which the deaf child's knowledge of various syntactic structures is explored, keeping the factor of vocabulary constant. The results of such a study, like the present ones, can be applied immediately by the instructor of the deaf, not only in dealing with specific grammatical problems, but in preparing special reading materials.

Summary of Words Known by 67%
of Deaf Children at
Various Age Levels

Pages 1 - 16

8- and 9-year-olds

bad
blue
brown

gray

look

mammy

red

she

10- and 11-year-olds

airplane	pray
bad	puppy
balloon	purple
banana	red
baseball	robin
basketball	
bird	sad
blue	sea
bread	see
brown	she
brownie (cake)	shoe, a
bunny	sixth
	skirt, a
cap (hat)	snowy
clock, a	soup
color, to	Sunday
cook, to	swim, to
cow	
cream	Tuesday
	twenty
daddy	two
December	
dentist	unhappy
doll	us
drawing	
	walk, to
elephant	wash, to
	watch, to
February	Wednesday
football	weekend
fox	white
Friday	wind (air)
fun	woodland
	woodwork
grandparent	write
gray	
green	yellow
hop	
hospital	
hot	
house	
January	
jelly	
July	
kitten	
lamb	
look	
mail	
mailbox	
mama	
me	
milk (a drink)	
Monday	
monkey	
orange (fruit)	
pancake	
pear	
pig	
policeman	
pony	
potato	

address	burn, to	dog	godmother
after	busy	doll	golf
airplane	cabbage	dollar	goose (bird)
airport	cabin	donkey	grade (class)
alligator	calf	door	grandfather
America	camel	doorway	grandparent
American	camera	draw (a picture)	grape
ant	camp, a	drawing	grapefruit
apple	cap (hat)	dress, to	gray
April	card	driveway	green
arithmetic	carrot	dry (not wet)	greenhouse
arm (of the body)	cat	duck, the	gymnasium
army	catfish	ear	hair
ask	cattle	easy	hairstresser
aunt	cheese	eat	ham
awful	cherry	eight	hamburger
bacon	chicken	eighteen	handsome
bad	child	electrical	hat
bake, to	chipmunk	elephant	hear, to
bakery	chocolate	eleven	hearing
ball (party)	church	every	heart
balloon	circus	everybody	hen
banana	classroom	everything	henhouse
bank (for money)	clear	everywhere	her
barber	clock, a	eye, the	highway
barn	clothe	face, the	home
baseball	cloud	false	hop
basketball	clown	family	horse
bathroom	coat	fan (blower)	hospital
bean	cocoa	far	hot
bear, the	coffee	faraway	house
beautiful	coin, a	farmer	housetop
bedroom	cold	father, the	hundred
beef	college	February	hungry
beer	color, to	fifteen	iced
belt	colored	fifth	indoor
berry	comb, the	fifty	indoors
best	combat	finger	jacket
better	cook, to	fire, the	January
Bible	cookie	fish, the	jelly
big	cousin	flash (light)	jellyfish
bigger	cow	flashlight	job
bird	crayfish	flower	juice
birthday	crayon	fly, to	July
black	cream	food	June
blackberry	crow (bird)	foot	kangaroo
blacksmith	cup	football	kitchen
blue	curl, to	footwear	kite
blueberry	cute	four	kitten
bluejay	daddy	fourteen	kitty
boat	dance, to	fourth	know
boating	dark	fox	lake
book, a	darkness	freezer	lamb
boot, a	day	Friday	lamp
bottle	daylight	frog	last, the
bowling	dead	full	laugh, a
box, the	deaf	fun	lazy
boy	December	fur	lemon
bread	deer	garden, the	letter, the
brightness	dentist	giraffe	library
bring	desk	girl	light, the
broom	die, to	girlish	lion
brown	dime	glue (paste)	listen
brownie (cake)	dinner	go	
buckskin	dirt	goat	
building	dish		
bunny			

little	peach	ship, a	uncle
locker, the	peanut	shoe, a	unhappy
log (wood)	pear	short	upside
long (tall)	pencil	sister	us
look	penny	six	
lot (many)	people	sixth	vegetable
lovely	pet, a	ski	very
lover	phone, to	skirt, a	visit, to
low	picture	skunk (animal)	
	pig	sky	wait, to
mad	pill	sleepy	wake, to
mail	pineapple	slow	walk, to
mailbox	pink	small	walker
mailman	plane (air-)	snail	warm
mama	play (fun)	snow	wash, to
mammy	plaything	snowy	washing
many	pocket, a	soldier, a	washroom
March	policeman	song	watch, to
mathematical	pond	sorry	weak
May	pony	soup	Wednesday
me	pool (water)	south	week
meat	pork	spider	weekend
milk (a drink)	postman	spoon, the	weighty
milky	potato	sport	where
million	pray	spring, to	white
minute (time)	puppy	springtime	wildcat
Miss (woman)	purple	squirrel	wind (air)
Monday	push, to	stick, the	winter
monkey		stone	witch
month	queen	store, the	wolf
morning		strawberry	woman
mountain	rabbit	street	woodcutter
mouse	race, to	study, to	wooded
movie	racer	summer	woodland
	railroad	Sunday	woodpecker
nest	railway	sunflower	woodwork
nice	rain, the	sweetheart	woody
nickel (coin)	rainbow	swim, to	workroom
night	rat		worm, a
nine	red	table, a	write
ninety	redwood	tablecloth	window
no	rest, to	tea	wing
noisy	road	teacher	
noon	roadway	teaspoon	year
nose	robin	telephone	yellow
November	root (of a plant)	tell	yesterday
	rose, a	ten	
	round	their	zebra
	rug	thin	zoo
		thousand	
		three	
		thumb	
		Thursday	
		tiger	
		today	
		toe	
		tomorrow	
		towel, a	
		toy, a	
		train (RR)	
		tree	
		true	
		Tuesday	
		turkey	
		turtle	
		twenty	
		twin	
		two	
oaken	sad		
oatmeal	sailboat		
ocean	sailor		
October	sandwich		
office (room)	schoolboy		
old	schoolhouse		
onion	sea		
orange (fruit)	seal (animal)		
out	second (after 1st)		
over	see		
overlook	seed, a		
owl	September		
	seven		
page (paper)	seventh		
paint, a	sewing		
pan	she		
pancake	sheep		
parade, to	shine		
parent			
party			
pay, to			

a	bath	bread	chocolate
act (part of show)	bathe	breakfast	church
act (thing done)	bathroom	breath	churchman
actor	battery	breathe	cigar
address	bay	breathless	cigarette
adult	bean	breezy	circle, a
afire	bear, the	brick	circus
afraid	beat	bridge (over river)	city
after	beautiful	bright	class (group)
aged	beautify	brighten	classmate
air, the	beaver	brightness	classroom
aircraft	become	bring	clear
airplane	bedroom	broom	climb
airport	bee	brotherly	clock, a
alligator	beef	brown	closet
allowable	beefsteak	brownie (cake)	cloth
aloud	beer	buckskin	clothe
alphabet	beet	bug, the	clothes
alphabetical	beetle	build	cloud
America	before	building	cloudless
American	begin	bull (male animal)	cloudy
and	beginner	bunny	clown
angry	believe	burn, to	club (group)
animal	bell	bus	coat
answer, to	belt	bushy	cocoa
ant	berry	busily	coffee
anywhere	best	busy	coin, a
apartment	better	butter	cold
ape, the	Bible	butterfly	college
apple	big	buy, to	collie
April	bigger	buyer	color, to
apron	bigness		colored
arithmetic	billion	cab (car)	colorful
arm (of the body)	bird	cabbage	colt
army	birthday	cabin	comb, a
ask	birthplace	cafe	combat
asleep	black	calendar	come
aunt	blackberry	calf	comfortable
auto	blackbird	camel	comma
autograph	blackness	camera	cook, to
awake	blacksmith	camp, a	cookie
award	blind	campus	copper (metal)
away	blindfold	candle	corn
awful	bloodshot	candlestick	correct
ax	blossom	candy	cost, the
	blouse	canoe, a	costume
baby, a	blue	cap (hat)	cottonwood
bacon	blueberry	car	country
bad	bluejay	card	cousin
badly	board (wood)	cardboard	cow
bag, a	boardinghouse	caretaker	cowboy
baggage	boat	carrot	cracker
bake, to	boating	cash, the	cranberry
baker	bobcat	cat	crawl, to
bakery	body	catch, to	crayfish
ball (party)	boil	catfish	crayon
balloon	book, a	cattle	crazy
banana	bookrack	cavern	cream
bank (for money)	bookseller	celery	creamy
bank (of a river)	boot, a	cent	crossword
bankbook	boss, the	chair	Crow (bird)
banker	both	change (make different)	
baptism	bottle	change (money)	
barber	bottom	chapter	cup
barn	bowl, the	cheese	curl, to
baseball	bowling	cherry	cute
basement	boy	chickadee	
basketball	brake	chicken	daddy
bat (stick)	branch (of a tree)	child	damage

dance	elevator	forget	grocery
darkness	eleven	forty	ground
dark	end, the	four	group
daughter	English	fourteen	grow
day	enjoyment	fourth	gunner
daydream	enlarge	fox	gymnasium
daylight	evening	freeze	gymnastics
dead	evergreen	freezer	
deadly	evermore	Friday	hair
deaf	every	friend	hairstresser
deafen	everybody	friendly	ham
deafness	everyone	frighten	hamburger
dear (darling)	everything	frog	hammer
December	everywhere	frost	hand (part of arm)
deer	evil	frosty	handbag
degree (unit)	exit, an	frozen	handle, to
dentist	eye, the	fruit	handsome
desk	eyebrow	fuel	happily
dictionary	face, the	full	hard
die, to	faith	fun	hardy
diet, a	fall (drop)	funeral	harmful
dime	false	fur	hat
dinner	family	furnishings	hate
dirt	fan (blower)	gallon	hay
dirty	far	game (sport)	he
dish	faraway	garage, a	head
dog	farm	garden	headache
doll	farmer	gardener	headlight
dollar	farmhouse	gas (gasoline)	headwater
donkey	fast (quick)	gate	hear
door	fat (heavy)	gentleness	hearer
doorway	father, the	geography	hearing
dormitory	fatherly	giant	heart
doughnut	favorite	gift	heater
downfall	February	gingerbread	heavy
downstairs	feed, to	giraffe	heel
dozen	feel	girl	hen
dragonfly	female	girlish	henhouse
draw (a picture)	few	give	her
drawing	field (land)	glad	here
dream	fifteen	glove	hers
dress	fifth	glue (paste)	high
dressmaker	fifty	go	highland
drip	fight, to	goat	highroad
drive, to	fighter (soldier)	godmother	highway
driver	finger	golden	hippopotamus
driveway	finish (end)	goldfish	hog
drown	fire, the	golf	hole
drummer	fireproof	good	holiday
drunkard	fish, the	goose (bird)	home
dry (not wet)	five	government	homelike
duck, the	flash (light)	governor	homemaker
	flashlight	grade (class)	homesick
each	flea	graduate	honesty
eagle	flood, to	grandchild	hoopskirt
ear	floor	grandfather	hop
earth	flour	grandpa	hope
earthquake	flower	grandparent	horse
earthworm	fly, to	grape	horseman
east	fog	grapefruit	horseshoe
easy	food	grass	hospital
eat	foolish	grasshopper	hot
eight	foot	grassy	hotel
eighth	football	gray	hour
eighty	footwear	grayheaded	hourly
elbow, the	forehead	green	house
electric	forenoon	greenhouse	household
electrical	forepaw	greeting	housekeeper
elephant	forest	grocer	housekeeping

housetop	last, the	million	open (not shut)
housewife	late (tardy)	miner	orange (fruit)
human	laugh, a	minute (time)	order (arrange)
hummingbird	laundry	mirror	ought
hundred	law	Miss (woman)	our
hungry	lazy	mistake	ourselves
hunter	lead, to	misunderstood	out
huntsman	learn	mitten	over
hurriedly	leather	Monday	overboard
hurry	leave, to	money	overcoat
husband	lemon	monkey	overhead
	lemonade	month	overjoy
I	letter, the	moose	overlook
icebox	liberty	morning	overshoe
iced	library	most	owl
icy	lie	moth	own
idea	life	mother	
ill	light, the	motherly	page (paper)
illness	lighten	motor (travel by car)	pail
imaginable	lightning	motorcar	paint, a
improvement	lime	mountain	painting
in	lion	mouse	pajamas
inch	list, a	move	pan
index	listen	movie	pancake
indoor	little	muddy	papa
indoors	live, to	music	parade, to
infection	lizard	mustard	parent
inn	locker	mystery	parrot
insect	log (wood)		part
into	long (tall)	nail, a	party
it	look	name (title)	paste
	lose	nation	paw
jacket	loser	nearly	pay, to
jacks	lot (many)	neck	payment
January	loud	negro	pca
jar	lover	neighbor	peach
jelly	lovely	nest	peanut
jellyfish	low	nevermore	pear
jet	lukewarm	nice	pecan
jeweler	lunch, a	nickel (coin)	pencil
jigsaw	lung	nicce	penny
job		night	people
joke	mad	nightfall	period (time)
joker	madman	nine	person
joyful	mail	nineteen	pct, a
juice	mailbox	ninety	phone, to
July	mailman	no	phonograph
June	male	noise	physical
junior	mama	noisy	picnic
	mammal	noon	picture
kangaroo	mammy	north	piece
keep	man, a	nose	pig
key	manager	not	pill
kid	many	note	pillow
kindness	map, a	November	pin, a
kiss	maple (tree)	nurse, a	pine (tree)
kitchen	March	nursery	pineapple
kite	mark, a		pink
kitten	marriage	oak	plane (air-)
kitty	mathematical	oatmeal	plate, a
knife	mathematics	obey	play (fun)
knowledge	May	ocean	playful
	maybe	October	playground
lady	me	octopus	plaything
ladybug	meal	office (room)	pleasurable
lake	meat	often	plum
lamb	medicine	old	pocket, a
lamp	melon	on	pocketbook
land	milk (a drink)	once	policeman
large	milky	onion	pond

pony	sad	ski	Sunday
pool (water)	sailboat	skin, the	sunflower
poorhouse	sailor	skip, to	sunlight
pork	salad	skirt, a	sunny
postage	sale	skunk (animal)	sunshine
postcard	salesman	sky	sunshiny
postman	saleswoman	sleep, to	supermarket
postscript	sand	sleepless	supervisor
potato	sandwich	sleepy	supper
pound (measure)	sauce	sleigh	swamp, the
powerful	saver	slow	sweater
pray	saw, a	small	sweep
problem	say, to	smoke	sweeper
proud	scale, a	snail	sweetheart
pumpkin	schoolboy	snow	swim, to
puppy	schoolhouse	snowflake	syrup
purple	schoolroom	snowy	
purse	scientist	soak, to	table, the
push, to	score, to	soapsuds	tablecloth
	sea	soft	tablespoon
queen	seal (animal)	soldier, a	tableware
question, a	seaman	some	take
quick	seaplane	somewhere	talk, to
quickly	seashore	son	talker
quiet	seaside	song	tall
quit	second (after first)	soon	tan (brown)
	see	sorrowful	tape, the
rabbit	seed, a	sorry	tax, a
raccoon	seedling	sound	taxi
race, to	seesaw, to	soup	tea
racer	sentence	south	teacher
railroad	September	speaker	team
railway	seven	speech	teaspoon
rain, the	seventh	spell	teens
rainbow	seventy	spend	telephone
rainy	sew	spoon, a	tell
raise, to	sewing	sport	ten
raisin	sex	spotlight	tennis
raspberry	shadow	spray, to	tent
rat	shampoo	spring, to	there
read, to	she	springtime	thermometer
red	sheep	spy, a	thin
redskin	shellfish	squirrel	thinker
redwood	shine	start, to	third
refrigerator	shiny	starve	thirsty
reindeer	ship, a	steak	thirst
rent, the	shoe, a	step, to	thirty
report, a	shoemaker	stepfather	thought
rest, to	shop, a	stepmother	thoughtful
return, to	shopper	stick, a	thousand
review, to	shopping	stiff	three
rib	short	stilts	throat
rice	shovel, a	stocking	thumb
rich	show	stomach, the	thunderous
ride	shower (rain)	stone	Thursday
right (true)	shower (bathe)	stop, to	ticket, a
ring, a	shrimp	store, a	tiger
river	shut	storm	tiny
road	sick	stormy	title (name)
roadway	sicken	stove	toast, the
robin	signal	strawberry	toaster
roof	silkworm	stream, a	tobacco
roofing	silly	street	today
roommate	silver	student	toe
rooster	sin	study, to	tomorrow
root (of a plant)	sing	subtract	toothache
rose, a	sister	subtraction	tornado
round	sit	suit (clothes)	touch, to
route, the	six	summer	towel, the
rug	sixth	sun, the	toy, a

14- and 15-year-olds

track (rails)
tractor
trailer
train (RR)
trash
traveler
tree
troop
trouble
truck
true
Tuesday
turkey
turn
turtle
twelve
twenty
twin
two
type
typewriter

umbrella
uncle
unclean
under
underground
undone
undress
unfair
unfriendly
unhappiness
unhappy
unhurt
unkind
unlearned
unlock
unlucky
unnamed
unwilling
up
upper
upside
upstairs
us
use, to
useful

valentine
vegetable
very
village
visit, to
vitamin
vocabulary
voiceless
vote, a
voter
wait, to
wake, to
wakeful
walk, to
walker
wall, a
want, to
warm
warmth
wash, to
washbowl
washer
washing
washroom
watch, to
watchtower
waterfall
waterway
we
weak
wear
Wednesday
week
weekend
weekly
weigh
weight
weighty
western
wet (not dry)
whale
wheat
wheel
when
where
whereabouts
wherever

whirlpool
whirlwind
white
who
whom
whose
why
wildcat
wind (air)
window
windmill
windy
wing
wink, to
winner
winter
wire (metal thread)
wish, to
witch
without
wolf
woman
womanly
wood
woodcutter
wooded
woodland
woodpecker
woodsman
woody
woodwork

workman
workroom
world
worm, a
worry
wrestler
write
wrong

yard (garden)
year
yearly
yellow
yesterday
you
young
youngster
youth

zebra
zero
zoo

a	autumn	Bible	brick
abbreviation	avenue	big	bridge (over river)
above	awake	bigger	bright
accidental	award	bigness	brighten
acre	away	bill, a	brightness
act (part of show)	awful	billion	bring
actor	awhile	bird	broke (out of money)
add	ax	birthday	broom
addition		birthplace	broomstick
additional	baboon	bite, to	brotherly
address	baby, a	black	brown
adopt	back	blackberry	brownie (cake)
adult	bacon	blackbird	brush (broom)
afire	bad	blackness	bucket
afraid	badly	blacksmith	buckskin
after	bag, a	blade	buffalo
again	baggage	blank	bug, the
age	bake, to	blanket, a	bugle
aged	baker	bleed	build
agree	bakery	bless	builder
agreement	balance, to	blessing	building
aid (help)	ball (party)	blind	bull (male animal)
air, the	ballet	blindfold	bullet
aircraft	balloon	blindness	bulletin
airman	banana	blizzard	bum, a
airplane	bank (for money)	blond	bump, a
airport	bank (of a river)	bloodshot	bumper
airy	bankbook	blossom	bunny
alcohol	banker	blouse	burn, to
alive	baptism	blow	bus
alligator	barber	blowout	business
almost	barn	blue	busy
aloud	baseball	blueberry	butter
alphabet	basement	bluebird	butterfly
alphabetical	basketball	bluejay	buy, to
amaze	bat (stick)	boardinghouse	buyer
amen	bath	boat	by
America	bathe	boating	
American	bathroom	bobcat	cab (car)
and	battery	body	cabbage
angel	bay	bomb, a	cabin
angry	beach	bonfire	cafe
animal	beak	book, a	cage, a
another	bean	bookkeeper	calendar
answer, to	bear, the	bookrack	calf
ant	beard	bookseller	call, to
anybody	beaten	bookshelf	calm
anyhow	beautiful	boot, a	camel
anywhere	beauty	boss, the	camera
apartment	beaver	both	camp, a
ape, the	because	bother	campus
apple	become	bottle	cancer
approval	bed, a	bottom	candle
April	bedroom	boundary	candlestick
arctic	bee	bowl, the	candy
arithmetic	beef	bowling	canoe, a
arm (of the body)	beefsteak	box, the	canyon
army	beehive	boxer (fighter)	cap (hat)
arrangement	beer	boy	capitol
arrow	beet	boyish	captain
art	beetle	brain	car
artist	begin	brake	card
ask	beginner	branch (of a tree)	cardboard
asleep	behave	bread	cardinal (bird)
aspirin	believe	breakable	care
astronomy	bell	breakfast	career
athletic	belt	breath	caretaker
atmosphere (air)	berry	breathe	carrot
aunt	beside	breathless	cart
auto	best	breeze	cartoon
autograph	better	breezy	cartoonist

16- and 17-year-olds

case (box)	coachman	curl, to	down
cash, the	coal	customer	downfall
cashier	coast	cut (open)	downhearted
castle	coat	cute	downstairs
cat	cocoa		dozen
catch, to	coconut	daddy	dragonfly
catcher	coffee	daily	draw (a picture)
catfish	coin, a	daisy	drawing
cattle	cold	dam	dream
cauliflower	collar, a	damage	dress
cause, to	collection	dampen	dresser
caution	college	dance	dressmaker
cavern	collie	danger	drier
celery	colony	dangerous	drink
cent	color, to	darkness	drinker
center, the	colored	dark	drip
cereal	colorful	daughter	drive, to
ceremony	colt	day	driver
chair	comb, a	daydream	driveway
champion	combat	daylight	drown
championship	comeback	dead	drummer
change (make different)	come	deaden	drunkard
change (money)	comfortable	deaf	drunkenness
charming	commission, to	deafen	dry (not wet)
cheap	commissioner	deafness	duck, the
check (mark)	communism	dear (darling)	dump, to
checkers	community	death	during
cheek	company (group)	December	
cheerful	compass	decide	each
cheese	complain	deer	eagle
chemistry	complete	degree (unit)	ear
cherry	congress	delight	early
chest	contact, to	dentist	earn
chew	cook, to	desk	earth
chick	cookie	detour, a	earthly
chickadee	cooperation	dictionary	earthquake
chicken	copper (metal)	die, to	earthworm
child	corn	diet, a	east
chin	corner	different	eastern
chip	cornstarch	dig	easy
chipmunk	correct	dime	eat
chocolate	cost, the	diner	educational
choose	cottonwood	dinner	eel
church	count, to	dinosaur	eight
churchman	country	dirt	eighteen
churchyard	courthouse	dirty	eighth
cigar	cousin	disappoint	elbow, the
cigarette	cow	disappointment	elector
cinnamon	crab (animal)	disease	electric
circle, a	cracker	dish	electrical
circulation	cradle, a	disinfect	electrician
circus	craft (art)	dislike	elephant
city	craftsman	disobedient	elevator
class (group)	crayfish	disrespect	eleven
classmate	crayon	distance	else
classroom	crazy	divide	elsewhere
cleanse	cream	dizzy	emergency
clear	creamy	do	employee
climb	credit, to	dog	employer
clock, a	crop	doll	employment
closet	crossroads	dollar	encouragement
cloth	crossword	donkey	end, the
clothe	crow (bird)	door	engagement
clothes	crow (boast)	doorknob	engine
cloud	crown (head covering)	doorway	English
cloudburst	cry, to	dormitory	enjoy
cloudless	cub	dot	enjoyment
cloudy	cuckoo	double	enlarge
clown	cup	doubtless	enter
club (group)		doughnut	equator

erase
establishment
evening
ever
evergreen
every
everybody
everyday
everyone
everything
everywhere
evil
examination
example
exchange, to
exit, an
expand
expedition
experience, an
explanation
explore
explosion
eye, the
eyebrow
eyelash
eyesight

face, the
fact
fail
fairy
fall (drop)
false
family
famous
fan (blower)
far
faraway
farm
farmer
farmhouse
fast (quick)
fat (heavy)
father, the
fatherly
fault (mistake)
favorite
fawn, a
fear, to
February
feed, to
feel
female
fence (wall)
few
field (land)
fifteen
fifth
fifty
fight, to
fighter (soldier)
finally
finger
finish (end)
fire, the
firearm
fireproof
fireworks
fish, the
fishery
fit, to

five
flash (light)
flashlight
flavor (taste)
flea
flier
flirt, to
float, to
flood, to
floor
florist
flour
flower
flowery
fly, to
fog
foggy
food
fool
foolishness
foot
football
footwear
forepaw
forest
forget
forgiveness
fork (utensil)
forty
forward
four
fourteen
fourth
fox
freedom
freeze
freezer
French
fresh
freshman
freshness
Friday
friend
friendless
friendly
fright
frighten
frog
from
front
frost
frosty
frozen
fruit
fry
fully
fun
fund
funeral
fur
furnishings
future
fuzzy

gallon
game (sport)
gangster
garage, a
garden
gardener
gas (gasoline)

gate
gentleness
geography
geographer
get
ghost
giant
gift
gingerbread
giraffe
girl
girlish
give
glad
gladness
globe
glove
glue (paste)

go
goat
godlike
godmother
golden
goldfish
goldsmith
golf
good
goodness
goodwill
goose (bird)
government
governor
grade (class)
graduate
grandchild
grandfather
grandpa
grandparent
grape
grapefruit
grass
grasshopper
grassy
gravity
gravy
gray
grayheaded
greatness
green
greenhouse
greeting
greyhound
grocer
grocery
ground
group
grow
guard, to
gulf (bay)
gunner
gunpowder
guy
gymnasium
gymnastics

hail (frozen rain)
hailstone
hair
hairdresser
hairy

half
halfway
ham
hamburger
hammer
hand (part of arm)
handbag
handkerchief
handle, to
handsome
happen
happily
happy
hard
hardy
harmful
hat
hate
hawk
hay
haystack
he
head
headache
headlight
headwater
health
healthy
hear
hearer
hearing
heart
heater
heaven
heaviness
heavy
height
help (aid)
hemisphere
hen
henhouse
her
here
hereabout
hero
hers
high
highland
highroad
highway
hike
hill
hilly
him
hip
hippopotamus
his
historian
hobby
hockey
hog
hole
holiday
home
homeless
homemaker
homesick
honest
honesty
hook
hoopskirt

16- and 17-year-olds

hop
hope
hopeless
horror
horse
horsehair
horseman
horseshoe
hose (pipe)
hospital
hot
hotel
hour
house
household
housekeeper
housekeeping
housetop
housewife
how
hug
human
hummingbird
hundred
hungry
hunter
huntsman
hurricane
hurried
hurriedly
hurry
hurt
husband

I
icebox
iced
icy
idea
if
ill
illness
illustrator
imaginable
improve
improvement
in
inch
incorrect
independence
index
indoor
indoors
industrious
infect
infection
insect
instructive
into
iron (metal)
it
ivory

jacket
jacks
jail, a
jailbird
jailer
January
jar
jaw

jelly
jellyfish
jet
jeweler
jigsaw
job
jockey
join
joke
joker
joking
journey
joy
joyful
joyless
joyous
judge
juice
July
jump
June
junior
jury
justify

kangaroo
keep
keeper
kid
kill
killer
kindly
kindness
kiss
kitchen
kite
kitten
kitty
knife
knight
knock (hit)
know
knowledge

ladder
lady
ladybug
lake
lamb
lamp
land
landing
landowner
language
large
last, the
late (tardy)
laugh, a
laughter
laundry
law
lazy
learn
leather
leave, to
legislature
lemon
lemonade
length
less
lesson

letter, the
lettuce
liar
liberty
library
lick, to
lid
lie
life
lifeless
lifelike
light, the
lighten
lightning
lighthouse
like
lily
lime
limestone
lion
lipstick
list, a
listen
listener
little
live, to
liver
lizard
lobster
locker
log (wood)
lonesome
long (tall)
look
loose
lose
loser
loss
lot (many)
lotion
loud
lover
lovely
low
luggage
lumber
lumberman
lunch, a
lung

machine, a
mad
madman
magazine
magnet
maid
mail
mailbox
mailman
make
maker
male
mama
mammal
mammy
man, a
manager
many
map, a
maple (tree)
march (walk)

March
mark, a
market
marriage
marvelous
material
mathematics
May
maybe
me
meal
mean
means
measles
measure
meat
medicine
meet, to
member
merry
mess (dirt)
meter
middle
mighty
milk (a drink)
milky
miller
million
mind, the
miner
mineral
minute (time)
mirror
Miss (woman)
mistake
mistaken
misunderstand
mix
moisture
Monday
money
monkey
monster
month
moose
more
morning
mosquito
most
moss
mossy
moth
mother
motherless
motherly
motor (travel by car)
motor (engine)
motorcar
motorist
mountain
mouse
move
movie
much
mud
muddy
mulberry
mule
multiply
mummy (dead body)
muscular
museum

music	ocean	peace	postmaster
muskrat	October	peach	potato
must	octopus	peanut	pound (measure)
mustache	of	pear	powerful
mustard	offering	pencil	powerless
my	office (room)	penny	practice
mystery	often	people	pray
	oftentimes	perfect	preserve
nail, a	old	perfume	presidency
name (title)	on	perhaps	president
natural	once	permit, a	press, the
naughty	one	person	prevent
near	onion	pet, a	priest
nearby	only	phone, to	prince
nearly	operation	phonograph	princess
neat	orange (fruit)	photo	principal
neck	order (command)	photograph	print (words)
necklace	order (arrange)	photographer	printer
need	organization	pickle	prison
needle	ounce	picture	prize, a
needless	our	piece	problem
negro	ourselves	pig	process, a
neighbor	out	pile (heap)	progressive
neighborly	outer	pill	proud
nephew	oven	pine (tree)	prove
nervous	over	pineapple	prune, a
nervousness	overcoat	pink	publisher
nest	overhead	pint	pump, a
net	overjoy	pioneer	pumpkin
never	overland	pitch (throw)	punishable
nevermore	overlook	plain (clear)	puppy
new	overpower	plane (air-)	purple
newborn	overshoe	plant, a	purse
news	overturn	plantation	push, to
next	overweight	planter	pussy
nice	overwork	plastic	put
nickel (coin)	owe	plate, a	
nickname	owl	play (fun)	quart
niece	own	playful	quarter ($\frac{1}{4}$)
night	owner	playground	quarterback
nightcap	ox	plaything	queen
nightfall	oxygen	pleasant	queer
nightmare	oyster	please	question, a
nine		pleasure	quick
nineteen	page (paper)	pledge, to	quickly
ninety	pail	plum	quicksand
no	pain	plumber	quiet
nobody	painful	plus	quit
noise	paint, a	pocket, a	
noiseless	painting	pocketbook	rabbit
noisy	pair	poetry	raccoon
noon	pajamas	poisonous	race, to
normal	pal	police, the	racer
north	palm	policeman	rag, a
nose	pan	polish	railroad
not	pancake	political	railway
note	papa	politician	rain, the
notebook	parade, to	pond	rainbow
notice	paragraph	pony	rainfall
November	parent	poodle	rainy
now	parrot	pool (water)	raisin
nowadays	part	pool (game)	ranch
nowhere	party	poor, the	rancher
number	pass (go by)	poorhouse	raspberry
nurse, a	past	popcorn	rat
nursery	paste	popular	read
	patrolman	pork	reader
oak	paw	port (harbor)	readiness
oatmeal	pay, to	postage	real
obey	payment	postcard	really
object, an	pea	postman	realize

recess	same	shopkeeper	snowy
recognition	sample, to	shopper	soak, to
red	sand	shopping	soapsuds
redskin	sandwich	shoreline	society
redwood	Saturday	short	socks
refrigerator	sausage	shoulder	soft
regular	save	shout	soil
reheat	saver	shovel, a	soldier, a
reindeer	savings	show	some
rejoin	saw, a	shower (rain)	someday
relationship	sawdust	shower (bathe)	someone
relative, a	sawmill	showman	sometimes
remove	say, to	shrimp	somewhere
rent, the	scare, to	shut	son
repair	schoolboy	sick	song
repeat, to	schoolhouse	sicken	songster
replacement	schoolmaster	sickly	sonny
reporter	schoolroom	sickness	soon
reprint, a	scientist	side	sore
rest, to	scissors	signal	sorrowful
restaurant	scold	signature	sorry
resless	score, to	silk	sound
restlessness	scrapbook	silkworm	soup
retire	scratch, to	silly	south
return, to	sea	silver	southern
review, to	seal (animal)	silverware	spaghetti
rheumatism	seaman	silvery	spank, to
rib	seaplane	sin	sparrow
rice	searchlight	sing	speak
rich	seashore	singer	speaker
ride	seasick	sink, a	speech
rider	seaside	sister	speechless
right (true)	season (time)	sit	speedily
ring, a	seat, a	six	spell
rise, to	seaweed	sixpence	spend
risk, a	second (after 1st)	sixteen	spider
river	see	sixth	spinach
road	seed, a	sixty	splash
roadway	seedling	skate	spokesman
robin	seesaw, to	skeleton	spoon, the
rocky	sell, to	ski	sport
roof	semicircle	skin, the	spot, a
roofing	send	skip, to	spotlight
roommate	senior (older)	skirt, a	spray, to
rooster	sentence	skunk (animal)	spring, to
root (of a plant)	September	sky	springtime
rope	service, a	skyscraper	sprinkle
rose, a	seven	slacks	spy, a
rough	seventh	slap, to	spyglass
round	seventy	sleep, to	squeeze, to
route, the	sew	sleeper	squirrel
rug	sewing	sleepless	stamp (make a mark)
rule, to	sex	sleepwalker	start, to
rush, to	shade	sleepy	starve
rye (grain)	shadow	sleeveless	statesman
	shampoo	slip, to	station, a
sad	shark	slipper	stay, to
sadden	sharp	slow	steak
sadness	shave	small	steal, to
safety	she	smallpox	steamship
sail	sheep	smart	steer, to
sailboat	shellfish	smell	step, to
sailor	shepherd	smile	stepfather
saint	sheriff	smog	stepmother
salad	shine	smoke	stew, to
sale	shiny	smoker	steward
salesman	ship, a	smokestack	stick, a
salesmanship	shoe, a	snail	stiff
saleswoman	shoemaker	sniff	stilts
salmon	shoot	snow	stink, a
salty	shop, a	snowflake	stocking

stomach, the	tax, a	touch, to	unpleasant
stone	taxation	towel, the	unreal
stop, to	taxi	toy, a	unsatisfactory
store, a	tea	tractor	unsuccessful
storekeeper	teach	trade, to	untaught
storm	teacher	trailer	until
stormy	team	train (RR)	untrained
story	tease	traveler	untrue
stove	teaspoon	treasure	unwelcome
strangeness	teens	tree	unwilling
straw (grain)	telegram	trip	up
strawberry	telephone	troop	upland
stream, a	telescope	trouble	upon
street	tell	truck	upper
strike, to	temperature	true	uppermost
stroke (sudden attack)	ten	truly	uproar
strong	tennis	truthful	upside
student	tent	Tuesday	upstairs
studio	terrible	tuna	upward
study, to	test (try)	turkey	us
subtract	testament	turn	useless
subtraction	testimony	turtle	
subway	textbook	twelve	valentine
such	thank	twenty	vegetable
sudden	thankfulness	twice	verb
suit (clothes)	thankless	twin	very
suitcase	theater	twirl	village
summer	their	two	vinegar
sun, the	there	type	visit, to
Sunday	thereby	typewriter	visitor
sundown	thermometer	typist	vitamin
sunflower	thief		vocabulary
sunless	thin	umbrella	voice, a
sunlight	think	unashamed	vote, a
sunny	thinker	unbecoming	voter
sunset	third	unborn	
sunshine	thirsty	uncle	wagon
sunshiny	thirst	unclean	waist
superintendent	thirty	under	wait, to
supermarket	thoughtful	underground	waitress
supervisor	thousand	underline	wake, to
supper	three	understand	wakeful
support	throat	undone	waken
surprise	thumb	undress	walk, to
sure	thunderbolt	unemployed	walker
surely	thundercloud	unequal	wall, a
swamp, the	thunderous	unfailing	wallet
sweater	Thursday	unfair	walnut
sweep	ticket, a	unfit	want, to
sweeper	tiger	unfold	warehouse
sweeten	time (past and future)	unfriendly	warfare
sweetheart	timepiece	ungrateful	warm
swim, to	tiny	unguarded	warmth
swing, to	title (right)	unhappiness	warning
sword	title (name)	unhappy	wash, to
syllable	toast, the	unharmed	washbowl
syrup	toaster	unhealthful	washer
	tobacco	unhealthy	washing
table, the	today	unheard	washroom
tablecloth	toe	unhurt	wasp
tablet	toilet	uniform	waste, to
tablespoon	tomato	unkind	wasteful
tableware	tomorrow	unlawful	watch, to
take	ton	unlearned	watchdog
talk, to	tongue	unlikely	watchman
talker	tonight	unlock	watchtower
tall	too	unlovely	waterfall
tan (brown)	toothache	unlucky	waterway
tape, the	toothpick	unnamed	waterworks
tasteless	tornado	unopened	watery
tasty		unpaid	wave, a

16- and 17-year-olds

way
wayside
we
weak
weaken
wear
wed
Wednesday
weed, a
week
weekend
weekly
weep
weigh
weight
weighty
west
western
wet (not dry)
whale
whalebone
wheat
wheel
when
where
wherever
while
whirlpool
whirlwind
white
who
whoever
whom
whose
why
wide
wildcat
will (going to)
wind (air)
window
windowpane
windmill
windy
wine
wing
winner
winter
wipe
wire (metal thread)
wireless
wish, to
witch
within
without
wizard
wolf
woman
womanhood
womanly
wonderful
wood
woodchuck
woodcraft
woodcutter
wooded
woodland
woodpecker
woodwork
woody
wool
woodsman

woolen
woolly
workman
workmanship
workroom
workshop
world
worm, a
wrapper
wreck, to
write
writer
wrong

year
yell, to
yellow
yesterday
yolk
you
young
youngster
youth

zebra
zero
zoo

REFERENCES

- Chomsky, N. Syntactic structures, The Hague: Mouton, 1957.
- Cooper, R. L. & Kaye, J. D. The development of a test of deaf children's linguistic competence. Final Report, OE-32-42-0000-6015, Project No. 6-1196, Office of Education, Department of Health, Education and Welfare, April 1967.
- Goetzinger, C. P. & Rousey, C. L. Educational achievement of deaf children. American Annals of the Deaf, 1959, 104, 221-231.
- Heider, F. K. & Heider, G. M. A comparison of sentence structure of deaf and hearing children. Psychological Monographs, 1940, 52, 42-103.
- Myklebust, H. R. The psychology of deafness. New York: Grune & Stratton, 1960.
- Silverman-Dresner, T. & Guilfoyle, G. R. The deaf child's knowledge of words. Final Report, OEG 0-8-000419-1792, Project No. 7-0419, Office of Education, Department of Health, Education and Welfare, August 1970.
- Simmons, A. A. A comparison of the type-token ratio of spoken and written language of deaf and hearing children. Volta Review, 1962, 64, 417-421.
- Taylor, L. T. A language analysis of the writing of deaf children. Final Report, OEG 4-9-192057-0009-032, Project No. 19-2057, Office of Education, Department of Health, Education and Welfare, August 1969.
- Wells, C. O. The development of abstract language concepts in normal and in deaf children. Chicago: University of Chicago, 1942.

A P P E N D I X

VOCABULARY LIST

A percentage of 25 could have been obtained by guessing alone.

* Word considered "known" at this age level.

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
a	F	one	56	42.9	61	54.1	60	51.7	74	73.0*	49	69.4*		
abandon	6	give up	70	25.7	63	22.2	76	22.4	70	32.9	58	39.7		
abbreviate	6	make shorter	69	23.2	76	27.6	64	39.1	77	49.4	52	53.8		
abbreviation	6	shortened form	65	36.9	91	39.6	69	46.4	68	60.3	64	76.6*		
abdomen	6	part of a body	76	32.9	87	24.1	73	41.1	78	46.2	63	60.3		
abide	6	stay	73	24.7	71	21.1	73	16.4	72	22.2	67	31.3		
abide	6	put up with	65	26.2	71	19.7	75	17.3	66	21.2	60	35.0		
ability	4	skill	67	26.9	83	26.5	76	21.1	84	36.9	58	39.7		
ablaze	4	on fire	79	25.3	75	17.3	76	21.1	83	26.5	53	26.4		
able	F	having power	59	23.7	86	33.7	61	47.5	86	47.7	63	54.0		
abnormal	6	unusual	64	43.8	72	52.8	80	51.3	76	38.2	50	50.0		
aboard	F	on a ship	65	23.1	61	27.9	90	27.8	67	29.9	73	31.5		
abolish	6	do away with	84	13.1	80	22.5	66	36.4	89	24.7	62	40.3		
about	F	around	51	25.5	63	38.1	66	40.9	53	47.2	53	66.0		
above	F	higher place	69	13.0	76	34.2	64	45.3	77	66.2	52	71.2*		
abrupt	6	short	69	18.8	93	17.2	70	14.3	80	6.3	70	17.1		
absence	4	being away	68	13.2	74	18.9	76	27.6	70	30.0	69	46.4		
absent	F	away	50	20.0	93	28.0	63	46.0	76	55.3	69	56.5		
absentee	6	person who is away	75	13.3	84	20.2	87	33.3	69	47.8	76	55.3		
absolute	6	complete	68	25.0	71	32.4	74	39.2	67	44.8	63	49.2		
absolutely	6	completely	68	38.2	71	29.6	74	27.0	67	38.8	63	36.5		
absorb	6	take in	41	14.6	57	15.8	70	12.9	71	25.4	51	43.1		
absorbed	6	interested	64	28.1	76	25.0	70	31.4	78	41.0	60	45.0		
absorbent	6	ready to take in	70	8.6	95	26.3	72	30.6	77	31.2	61	50.8		
absurd	6	foolish	71	16.9	98	25.5	79	24.1	65	29.2	64	18.8		
abundance	6	plenty	79	22.8	75	28.0	76	43.4	83	39.8	53	39.6		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
abundant	6	plentiful	78	24.4	82	45.1	82	45.1	85	43.5	61	42.6		
abuse	6	make bad use of	49	10.2	69	18.8	65	24.6	79	34.2	49	51.0		
academy	6	place for instruction	51	27.5	63	46.0	66	43.9	53	32.1	53	47.2		
accent	6	stronger tone	78	24.4	82	18.3	82	30.5	85	38.8	61	45.9		
accent	6	way of pronouncing	68	26.5	74	25.7	76	35.5	70	47.1	69	44.9		
accept	F	take what is given	70	21.4	95	28.4	72	27.8	77	41.6	61	55.7		
accessory	6	person who has helped in a crime	66	19.7	73	19.2	66	34.8	86	23.3	71	40.8		
accidental	6	happening by chance	65	30.8	91	37.4	69	47.8	68	58.8	64	71.9*		
accommodate	6	help out	74	28.4	79	32.9	77	23.4	80	23.8	57	29.8		
accompany	6	go along with	71	23.9	87	26.4	72	33.3	80	42.5	56	57.1		
accomplish	6	do	63	14.3	82	11.0	71	15.5	82	9.8	67	23.9		
accomplished	6	skilled	56	17.9	61	23.0	60	20.0	74	14.9	49	20.4		
accomplishment	6	deed	76	21.1	91	16.5	75	13.3	85	16.5	57	19.3		
accord	6	agree	49	20.4	56	14.3	72	29.2	63	39.7	61	47.5		
accordance	6	agreement	50	28.0	93	33.3	63	38.1	76	40.8	69	37.7		
accordingly	6	in agreement	60	25.0	83	30.1	75	42.7	79	34.2	60	40.0		
accordion	6	instrument	60	15.0	67	32.8	79	31.6	81	27.2	62	25.8		
account	6	statement about an event	65	20.0	77	22.9	76	23.7	75	41.3	68	30.9		
account	6	record of money	71	22.5	98	33.7	79	34.2	65	44.6	64	62.5		
accountant	6	bookkeeper	71	31.0	96	35.7	79	41.8	65	52.3	64	43.8		
accumulate	6	collect	78	33.3	82	40.2	82	57.3	85	58.8	61	59.0		
accuracy	6	freedom from error	45	17.8	67	32.8	79	35.4	63	33.3	53	34.0		
accurate	6	right	70	25.7	95	15.8	72	16.7	77	24.7	61	36.1		
accuse	6	blame	60	13.3	83	20.5	75	30.7	79	39.2	60	35.0		
accustom	6	make familiar by use	69	20.3	91	26.4	83	27.7	69	33.3	61	36.1		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
ace	6	card	65	38.5	71	32.4	75	32.0	66	24.2	60	23.3
ache	F	be in pain	70	26.6	60	30.0	58	34.5	74	56.8	67	64.2
achieve	6	reach by effort	56	20.7	86	20.9	76	27.6	78	42.3	58	43.1
achievement	6	accomplishment	70	27.1	69	46.4	87	56.3	67	53.7	57	49.1
acid	4	sour	60	30.0	57	31.6	66	33.3	64	28.1	53	32.1
acorn	F	nut	49	32.7	69	30.4	65	47.7	79	58.2	49	63.3
acquaint	6	make familiar	56	26.8	77	24.7	79	24.1	76	23.7	47	27.7
acquaintance	6	friend	70	20.0	95	22.1	72	20.8	77	16.2	61	18.0
acre	F	measure of land	70	24.3	88	19.3	62	50.0	79	53.2	66	68.2*
acreage	6	number of acres	70	22.9	88	31.8	62	36.7	79	49.4	66	59.1
acrobat	6	tumbler	58	32.8	70	42.9	58	39.7	57	33.3	56	37.5
across	F	from one side to the other	60	23.3	79	29.1	82	48.8	66	56.1	72	56.9
act	4	part of a show	52	17.3	75	45.3	65	61.2	64	70.3*	52	98.1*
act	6	law	58	29.3	70	31.4	58	27.6	57	31.6	56	21.4
act	F	thing done	66	32.4	80	35.0	64	53.1	68	67.6	71	64.8
action	4	movement	64	20.3	76	26.3	70	30.0	78	50.0	60	60.0
active	4	busy	66	32.4	74	16.2	76	42.1	70	52.9	69	58.0
activity	6	movement	60	23.3	57	50.9	66	45.5	64	64.1	53	58.5
actor	4	performer	70	22.9	95	27.4	72	47.2	77	68.8*	61	73.8*
actress	6	woman actor	79	27.8	76	26.3	91	24.2	64	50.0	69	40.6
actual	6	real	75	28.0	88	15.9	77	29.9	74	16.2	72	18.1
actually	6	really	64	15.6	72	26.4	80	37.5	76	27.6	50	32.0
add	F	put together	74	24.3	79	34.2	77	50.6	60	65.0	57	77.2*
addition	6	summing up	54	37.0	86	38.4	73	49.3	77	53.2	63	66.7*
additional	6	extra	70	17.1	69	15.9	87	35.6	67	46.3	57	68.4
address	F	place where mail is sent	50	28.0	68	52.9	61	70.5*	60	63.3*	54	90.7*

WORD	DATE GRADE	DEFINITION	AGES									
			9 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
adenoids	6	growth in throat	75	20.0	88	21.6	77	36.4	74	29.7	72	33.3
adhesive	6	sticky tape	58	25.9	86	26.7	76	22.4	78	25.6	58	29.3
adjective	6	word that describes	44	27.3	76	26.3	88	40.9	59	49.2	55	50.9
adjoin	6	end	69	30.4	91	14.3	83	22.9	69	26.1	61	31.1
adjust	6	arrange	66	28.8	73	38.4	69	42.0	70	32.9	66	43.9
adjustment	6	changing to make fit	50	8.0	68	17.6	61	29.5	60	30.0	54	61.1
administration	6	people in charge	44	25.0	76	26.3	88	17.0	59	28.8	55	38.2
administrator	6	manager	68	22.1	80	23.8	65	20.0	65	53.8	71	52.1
admiral	4	officer	70	25.7	63	31.7	76	40.8	70	32.9	56	53.4
admiration	6	delight	60	13.3	83	27.7	75	28.0	79	32.9	60	30.0
admire	F	think highly of	70	20.0	88	13.6	62	24.2	79	35.4	66	40.9
admirer	6	follower	71	32.4	98	22.4	79	36.7	65	41.5	64	53.1
admission	4	price paid	64	18.8	72	31.9	75	26.0	81	46.9	65	56.9
admit	6	allow to enter	66	36.4	73	30.1	69	24.6	70	44.3	66	48.5
admittance	6	entrance	70	40.0	80	46.3	58	34.5	74	48.6	67	46.3
adobe	6	bricks	66	25.0	80	22.5	65	26.2	65	27.7	71	36.6
adopt	6	take for your own	56	35.7	61	16.0	60	23.3	74	52.7	49	67.3*
adoption	6	choosing	49	26.5	62	37.1	57	31.6	67	38.8	57	52.6
adorable	6	attractive	79	17.7	76	26.3	91	42.9	64	37.5	69	40.6
adrift	6	floating	50	32.8	70	37.1	58	44.8	57	28.1	56	42.9
adult	4	grown-up	70	24.3	88	30.7	62	59.7	79	75.9*	66	78.8*
advance	4	move forward	61	42.6	81	28.4	85	36.5	74	55.4	59	25.4
advancement	6	moving forward	60	33.3	79	39.2	82	30.5	66	33.3	72	41.7
advantage	6	benefit	67	11.9	70	5.7	73	16.4	72	34.7	73	34.2
adventure	F	happening	68	42.6	80	43.8	69	36.2	70	58.6	59	66.1
adventurer	6	traveler	68	33.8	71	28.2	74	43.2	67	44.8	63	58.7

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
adventurous	6	fear less	68	22.1	74	27.0	76	32.9	70	32.9	69	37.7		
adverb	6	part of grammar	68	29.4	80	23.8	64	34.4	68	33.8	71	52.1		
advice	4	suggestion	61	19.7	81	19.8	85	37.6	74	40.5	59	50.8		
advisable	6	wise	63	11.1	82	13.4	71	16.9	82	25.6	67	41.8		
advise	4	tell	64	29.7	72	20.8	75	20.0	81	34.6	65	46.2		
adviser	6	one who gives advice	65	23.1	89	21.3	69	34.8	71	50.7	66	59.1		
aerial	6	in the air	76	34.2	91	23.1	75	18.7	85	20.0	57	19.3		
afar	F	a long way off	60	31.7	57	45.6	66	54.5	64	64.1	53	66.0		
affair	6	business	50	16.0	68	20.6	61	21.3	60	16.7	54	22.2		
affect	6	influence	64	23.4	72	22.2	80	25.0	76	43.4	50	40.0		
affection	6	friendly feeling	65	23.1	71	45.1	75	37.3	66	27.3	60	40.0		
affectionate	6	loving	67	14.9	83	15.7	76	15.8	84	23.8	58	27.6		
afford	4	have the money	67	32.8	83	25.3	76	27.6	84	40.5	58	44.8		
afire	4	burning	63	27.0	82	34.1	71	52.1	82	66.3*	67	79.1*		
afame	4	on fire	80	27.5	75	29.3	76	27.6	66	51.5	62	51.6		
afloat	6	adrift	79	16.5	76	30.3	91	35.2	64	42.2	69	43.5		
afoot	6	going on	60	28.3	79	35.4	82	26.8	66	40.9	72	41.7		
afraid	F	frightened	66	36.4	73	63.0	66	62.1	86	79.1*	71	85.9*		
after	F	later	61	27.9	81	49.4	65	72.9*	74	85.1*	59	84.7*		
afternoon	F	time between noon and sunset	45	20.0	67	31.3	79	36.7	63	42.9	53	53.5		
afterthought	6	second thought	68	19.1	80	27.5	69	39.1	70	42.9	59	39.0		
afterward	F	later	65	26.2	89	34.8	69	44.9	71	57.7	66	56.1		
again	F	once more	61	39.3	74	47.3	85	49.4	64	65.6	78	73.1*		
against	F	close up to	68	22.1	74	24.3	76	30.3	70	26.6	69	21.7		
age	F	time of life	79	24.1	75	29.3	76	40.	83	59.0	53	71.7*		
aged	F	old	60	23.3	79	25.3	82	47.6	66	78.8*	72	68.1*		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
agency	6	office	78	19.2	73	26.0	61	44.4	61	43.2	71	57.7
agent	6	person who acts for another	70	22.9	80	25.0	58	31.0	74	39.2	67	35.8
aglow	6	shiny	75	30.7	84	23.8	67	26.7	69	30.4	76	30.3
ago	F	past	68	32.4	30	42.5	69	60.9	70	65.7	59	76.3*
agony	6	great suffering	60	20.0	57	19.3	66	25.8	64	31.3	53.	34.0
agree	F	think alike	68	29.4	80	23.8	69	58.0	70	62.9	59	67.8*
agreeable	6	pleasant	70	28.6	95	20.0	72	23.6	77	39.0	61	45.9
agreement	6	understanding between persons	71	23.9	87	28.7	72	37.5	80	51.3	56	76.8*
agricultural	6	having to do with farming	70	31.4	95	16.8	72	23.6	77	29.9	61	37.7
agriculture	6	farming	64	21.9	72	23.6	75	16.0	81	36.3	65	38.5
aground	6	stuck fast	45	31.1	67	23.9	79	31.6	63	38.1	53	50.9
ahead	F	in front	79	16.5	76	21.1	91	41.8	64	39.1	69	44.9
aid	F	help	70	30.0	63	44.4	76	50.0	70	65.7	56	77.6*
ail	6	feel sick	70	45.7	69	36.2	87	46.0	67	37.3	57	28.1
ailment	6	sickness	64	26.2	80	22.5	66	33.3	89	24.7	62	29.0
aim	F	point at	60	30.0	57	26.3	66	36.4	64	26.1	53	54.7
air	F	gases around the earth	60	31.3	75	42.7	76	53.9	66	71.2*	62	88.7*
aircraft	6	plane	65	32.3	91	36.3	69	53.6	68	77.9*	64	81.3*
airfield	F	landing strip	64	29.8	80	21.3	66	36.4	89	39.3	62	54.8
airman	6	pilot	77	27.3	94	36.2	62	50.0	77	62.3	66	67.6*
airplane	F	flying machine	60	56.3	75	77.3*	76	80.3	66	89.4*	62	96.8*
airport	F	station for planes	67	32.6	83	51.8	76	73.7*	84	78.6*	58	81.0*
airship	F	balloon that can be steered	68	39.7	71	31.0	74	50.0	67	52.2	63	61.9

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
airtight	6	having no opening	51	21.6	63	25.4	66	40.9	53	50.9	53	52.8
airway	4	route	65	30.6	61	26.2	90	46.7	67	61.2	73	63.0
airy	F	breezy	76	27.6	91	37.4	75	48.0	65	64.7	57	68.4*
aisle	6	long passage	70	24.3	69	23.2	87	20.7	67	35.8	57	35.1
ajar	6	open	65	20.0	61	21.3	90	25.6	67	19.4	73	30.1
alarm	F	warn	70	22.9	69	27.5	87	39.1	67	52.2	57	64.9
album	4	scrapbook	64	18.8	72	16.7	80	26.3	76	43.4	50	52.0
alcohol	6	liquor	56	19.6	77	29.9	79	36.7	76	51.3	47	72.3*
ale	6	beer	78	33.3	73	23.3	61	29.6	81	27.2	71	32.4
alert	6	warning	59	35.6	86	25.6	61	26.2	86	42.0	63	57.1
alert	6	watchful	79	17.7	75	21.3	76	22.4	63	20.5	53	32.1
alfalfa	6	plant	66	15.2	73	27.4	66	28.8	66	31.4	71	39.4
algebra	6	mathematics	60	20.0	75	20.0	76	21.1	66	33.3	62	53.2
alibi	6	excuse	65	27.7	61	14.8	90	22.2	67	20.9	73	17.8
alike	F	in the same way	59	15.3	56	33.9	49	44.9	67	44.8	55	65.5
alive	F	living	75	29.3	64	35.7	87	44.8	69	62.3	76	69.7*
all	F	the whole of	60	25.0	70	22.9	79	43.0	62	52.4	36	60.5
allegiance	6	loyalty	71	21.1	87	16.1	72	26.4	80	26.3	56	50.0
alley	F	back street	65	18.5	71	32.4	75	36.0	66	40.9	60	41.7
alligator	F	animal	61	44.3	81	55.6	65	69.4*	74	68.9*	59	72.9*
allow	F	let	70	20.0	60	21.3	58	25.9	74	39.2	67	50.7
allowable	6	permissible	70	27.1	69	44.9	87	57.5	67	67.2*	57	61.4
allowance	4	money	76	29.5	79	30.4	69	24.6	66	34.8	68	35.3
almighty	4	having all power	74	31.1	79	39.2	77	33.8	60	41.3	57	36.8
almond	6	nut	66	35.3	74	29.7	76	38.2	70	35.7	69	36.2

WORD	DALE GRADE	DEFINITION	AGES											
			8+9		10 + 11		12 + 13		14		+ 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%	N	%
almost	F	nearly	56	26.8	61	45.9	60	48.3	74	66.2	49	79.6*		
aloft	6	high above	71	19.7	87	16.1	72	31.9	80	28.8	56	50.0		
along	F	by the side of	71	26.6	87	26.4	72	29.2	80	42.5	56	60.7		
alongside	4	close to	70	17.1	63	20.6	76	39.5	70	41.4	58	58.6		
aloud	F	in a clear voice	59	28.8	70	44.3	76	51.3	64	73.4*	56	75.0*		
alphabet	4	letters	79	25.3	76	32.9	91	49.5	64	70.3*	69	76.8*		
alphabetical	4	letters in order	48	31.3	70	54.3	59	50.8	66	71.2*	57	82.5*		
already	F	by this time	68	19.1	80	22.5	65	36.9	65	52.3	71	50.7		
also	F	too	78	43.6	73	35.6	81	39.5	81	54.3	71	60.6		
altar	6	holy table	59	20.3	70	38.6	76	43.4	64	37.5	56	46.4		
alternate	6	one after another	76	24.4	73	27.4	81	18.5	81	32.1	71	33.8		
although	6	even if	78	19.2	73	15.1	81	27.2	81	29.6	71	49.3		
altitude	6	height	78	20.5	73	12.3	81	21.0	81	25.9	71	35.2		
alto	6	lowest voice	45	28.9	68	22.1	79	15.2	57	22.8	51	25.5		
aluminum	6	metal	65	33.8	91	24.2	69	33.3	68	45.6	64	54.7		
amateur	6	person who does something for pleasure	60	18.3	67	22.4	79	30.4	81	37.0	62	50.0		
amaze	4	surprise	69	37.7	76	50.0	64	50.0	77	66.2	52	76.9*		
amazement	6	surprise	58	27.6	86	25.6	76	30.3	78	42.3	58	58.6		
ambition	6	desire for success	58	29.3	86	32.6	76	34.2	78	59.0	58	55.2		
ambitious	6	cager for fame	59	20.3	86	19.8	61	21.3	88	29.5	63	30.2		
ambulance	4	automobile to carry sick people	78	32.1	82	37.8	82	47.6	85	55.3	61	62.3		
ambush	6	surprise attack	78	19.2	73	21.9	81	17.3	81	28.4	71	32.4		
amen	6	word at end of prayer	51	25.5	63	38.1	66	62.1	53	64.2	53	71.7*		
amendment	6	a change	75	16.0	86	19.3	77	16.9	74	29.7	72	34.7		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
America	F	United States	63	38.1	82	57.3	71	81.7*	82	84.1*	67	97.0*		
American	F	citizen of the United States	71	32.4	87	44.8	72	68.1*	80	83.0*	56	94.6*		
amidst	6	among	63	14.3	82	20.7	71	43.7	82	30.5	67	50.7		
ammunition	6	military supplies	57	21.1	64	39.1	63	46.0	76	46.1	53	49.1		
among	F	in the middle of	51	23.5	63	15.9	66	28.8	53	49.1	53	58.5		
amongst	6	amidst	64	25.0	76	50.0	70	45.7	78	46.2	60	43.3		
amount	F	sum	78	23.1	82	28.0	82	32.9	85	52.9	61	63.9		
amuse	4	cause to laugh	70	20.0	69	27.5	87	29.9	67	32.8	57	29.8		
amusement	5	entertainment	50	40.0	93	47.3	63	54.0	76	56.6	69	43.5		
an	F	one	59	27.1	56	37.5	49	53.1	67	59.7	55	65.5		
ancestor	6	person from whom you are descended	49	14.3	62	29.0	57	31.6	67	40.3	57	43.9		
anchor	4	piece of iron	76	19.2	73	21.9	81	33.3	81	34.6	71	46.5		
ancient	5	very old	59	23.7	86	23.3	61	26.2	88	40.9	63	52.4		
and	F	as well as	63	27.0	82	35.4	71	42.3	82	67.1*	67	80.6*		
angel	F	winged being	76	21.1	91	51.6	75	58.7	85	64.7	57	77.2*		
angelic	6	heavenly	41	19.5	57	42.1	70	57.1	71	57.7	51	56.9		
anger	F	a feeling	61	9.6	74	21.6	85	41.2	64	40.6	78	56.4		
angle	6	point where two lines meet	80	21.3	75	18.7	76	28.9	66	31.8	62	40.3		
angrily	6	in an angry manner	75	25.3	84	34.5	87	42.5	69	55.1	76	53.9		
angry	F	mad	68	35.3	74	40.5	76	63.2	70	71.4*	69	78.3*		
animal	F	any living thing	71	21.1	87	28.7	72	51.4	80	73.8*	56	82.1*		
announce	4	call out	58	25.9	70	25.7	58	22.4	57	31.6	56	57.1		
announcement	6	making known	41	34.1	57	17.5	70	11.4	71	26.6	51	43.1		
announcer	4	one who speaks publicly	64	23.4	76	26.3	70	32.9	78	25.6	60	55.0		
annoy	6	make angry	49	28.6	56	32.1	72	33.3	63	46.0	61	39.3		
annoyance	6	a bother	70	38.6	95	35.8	72	36.1	77	27.3	61	54.1		
annual	6	once a year	49	22.4	56	16.1	72	29.2	63	44.4	61	44.3		
another	F	one more	69	31.9	93	29.0	70	50.0	80	58.8	70	74.3*		

-9-

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
answer	F	speak in return	77	45.5	94	42.6	62	46.8	77	75.3*	66	79.4*
ant	F	insect	70	22.9	88	45.5	62	77.4*	79	86.1*	66	92.4*
antelope	4	animal	41	31.7	57	35.1	70	42.9	71	42.3	51	58.8
anthem	6	song	60	20.0	85	14.1	84	21.4	79	16.5	60	20.0
antiseptic	6	substance to kill germs	74	26.4	79	31.6	77	36.4	60	53.8	57	61.4
antler	6	deer's horn	60	28.8	75	22.7	76	26.3	66	24.2	62	30.6
anvil	6	iron block	58	25.9	86	25.6	76	21.1	76	29.5	58	20.7
anxious	6	troubled	78	12.8	82	26.8	82	25.6	85	37.6	61	44.3
any	F	one of many	50	34.0	66	51.5	61	41.0	60	41.7	54	42.6
anybody	F	any person	54	29.6	96	38.4	73	54.8	77	63.6	63	81.0*
anyhow	F	in any way	64	26.6	72	41.7	75	40.0	81	61.7	65	73.8*
anyone	F	some person	68	17.6	74	45.9	76	51.3	70	65.7	69	56.5
anyway	F	in any case	50	22.0	68	25.0	61	36.1	60	43.3	54	55.6
anywhere	F	at some place	61	26.2	74	40.5	85	51.8	64	67.2*	78	76.9*
apart	F	away from	68	32.4	74	33.8	76	32.9	70	44.3	69	47.8
apartment	F	set of rooms	56	21.4	61	36.1	60	41.7	74	70.3*	49	75.5*
ape	F	monkey	79	39.2	75	42.1	91	45.1	64	67.2*	69	73.9*
apiece	F	each	49	18.4	56	32.1	72	34.7	63	50.8	61	60.7
apologize	6	say one is sorry	45	40.0	67	28.4	79	26.6	63	34.9	53	37.7
apology	6	saying one is sorry	49	26.6	56	30.4	72	27.8	63	23.5	61	32.6
apostle	6	religious leader	70	21.4	63	27.0	76	26.3	70	38.6	58	46.6
appeal	6	ask	76	35.9	73	26.0	81	17.3	81	22.2	71	33.8
appear	F	be seen	79	13.9	76	16.4	91	23.1	64	29.7	69	30.4

WORD	DALE GRADE	DEFINITION	AGES									
			6 - 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
appearance	4	look of a person	75	28.0	64	26.2	67	26.4	69	34.8	76	39.5
appendicitis	6	disease	65	20.0	71	23.9	75	32.0	66	39.4	60	36.7
appendix	6	growth attached to the intestine	65	22.7	77	35.1	76	47.4	75	52.0	68	58.8
appetite	6	desire for food	58	25.9	70	27.1	56	34.5	57	42.1	56	41.1
appetizer	6	relish	78	23.1	62	18.3	62	19.5	85	23.5	61	23.0
applaud	6	clap the hands	59	23.7	70	37.1	76	34.2	64	29.7	56	30.4
applause	6	clapping hands	68	22.1	80	32.5	69	34.8	70	31.4	59	45.8
apple	F	fruit	64	46.4	72	63.9	75	69.3*	61	65.2*	65	95.4*
appliance	6	tool	64	20.3	72	22.2	75	25.3	61	25.9	65	29.2
apply	6	put on	61	16.0	81	18.5	85	17.6	74	23.0	59	39.0
/												
appoint	6	choose	49	20.4	56	21.4	72	30.6	63	33.3	61	47.5
appointment	4	date	44	25.0	76	13.2	88	21.6	59	16.9	55	29.1
appreciate	6	think highly of	60	21.7	79	25.3	82	35.4	66	39.4	72	48.6
approach	4	come near	70	31.4	69	29.0	87	36.8	67	41.8	57	45.6
approachable	6	open to	64	26.6	72	27.8	75	10.7	81	27.2	65	32.3
appropriate	6	proper	41	26.8	57	26.3	70	27.1	71	33.8	51	41.2
approval	6	praise	63	22.2	82	29.3	71	40.8	82	45.1	67	67.2*
approve	6	consent to	60	18.3	67	31.3	79	35.4	81	39.5	62	58.1
apricot	6	fruit	68	25.0	80	17.5	69	29.0	70	41.4	59	45.8
April	F	month	58	53.4	86	59.3	76	78.9*	78	65.9*	58	96.6*
apron	F	bib	67	46.4	83	43.4	76	51.3	84	66.7*	56	55.2
apt	6	likely	52	17.3	75	21.3	85	18.8	64	26.6	52	55.8
aquarium	4	tank for fish	80	31.3	75	30.7	76	19.7	66	47.0	62	50.0
arch	6	curved top of door	64	31.3	72	27.8	75	24.0	81	17.3	65	35.4
archer	6	person who shoots with bow and arrow	66	36.2	80	37.5	64	50.0	68	41.2	71	50.7

-11-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
archery	6	shooting with bow and arrow	69	18.6	76	32.9	64	28.1	77	45.5	52	40.6		
archway	4	passage	52	17.3	75	26.7	65	21.2	64	25.0	52	33.6		
arctic	4	at the North Pole	69	37.7	93	22.6	70	36.6	60	47.5	70	56.6*		
area	6	surface	56	30.4	61	26.2	60	31.7	74	51.4	49	65.3		
arena	6	space where contests take place	76	23.7	91	24.2	75	18.7	65	38.8	57	36.8		
argue	6	debate	60	20.0	67	23.9	79	21.5	61	29.6	62	35.5		
argument	6	dispute	59	16.9	56	14.3	49	28.6	67	25.4	55	45.5		
arise	F	got up	49	26.6	56	35.7	72	36.1	63	36.5	61	47.5		
arithmetic	F	art of numbers	64	42.2	72	51.4	75	73.3*	61	77.8*	65	64.6*		
ark	6	boat	67	35.8	63	32.5	76	36.6	64	42.9	56	31.8		
arm	F	part of a body	76	34.2	67	46.3	73	72.6*	78	64.6*	63	67.3*		
arm	6	provide with weapons	59	6.6	70	27.1	76	43.4	64	40.6	56	37.5		
armful	F	as much as one arm can hold	75	25.3	66	36.6	77	44.2	74	54.1	72	48.6		
armistice	6	a stop in fighting	70	25.7	63	36.5	76	44.7	70	35.7	56	35.2		
armor	4	covering	76	23.1	73	15.1	61	22.2	61	22.2	71	38.0		
armored	6	covered with armor	65	13.6	69	30.3	69	43.5	71	62.0	66	60.6		
armory	6	storage place	45	26.9	67	25.4	79	43.0	63	34.9	53	32.1		
armplc	6	hollow	69	21.7	93	21.5	70	22.9	80	20.0	70	31.4		
arms	6	weapons	76	20.5	62	36.6	62	39.0	65	52.9	61	30.8		
army	F	group of soldiers	64	34.4	72	40.3	80	73.6*	76	78.9*	50	45.0*		
arouse	6	awaken	60	26.7	67	38.6	79	44.3	61	50.6	62	30.0		
arrange	F	put in order	79	19.0	75	25.3	76	15.6	63	14.5	53	13.2		
arrange	6	set to music	45	20.0	66	10.3	79	16.5	57	24.6	51	17.3		
arrangement	6	plan	77	19.5	94	26.6	62	33.9	77	51.9	68	70.6*		
arrest	4	take to jail	60	43.6	65	27.1	84	35.7	79	36.7	60	33.5		

-12-

WORD	DALE GRADE	DEFINITION	AGES											
			9 + 10		10 + 11		11 + 12		12 + 13		13 + 14		14 + 15	
			N	%	N	%	N	%	N	%	N	%	N	%
arrival	4	a coming	76	23.7	67	29.9	73	34.2	70	46.2	63	61.9		
arrive	F	come	68	20.6	74	17.6	76	36.0	70	60.0	69	65.2		
arrow	F	stick	76	21.0	62	22.0	62	36.1	65	61.2	61	70.7*		
arrowhead	6	tip of arrow	41	19.5	57	24.6	70	32.9	71	49.3	51	50.0		
art	F	skill	60	30.2	60	25.0	65	41.5	65	53.0	71	69.0*		
arthritis	6	disease	71	19.7	90	27.6	79	25.3	65	29.2	64	20.1		
article	6	brief paper	45	37.0	60	32.4	79	35.4	57	42.1	51	35.3		
artificial	6	not natural	60	33.0	65	40.0	64	41.7	79	53.2	60	55.0		
artillery	6	guns	57	35.1	64	21.9	63	11.1	76	13.2	53	10.9		
artist	F	painter	63	23.0	62	34.1	71	47.9	62	63.4	67	77.6*		
as	F	no less than	70	16.7	79	32.9	69	39.1	66	37.9	66	52.9		
ashore	4	on land	64	26.1	76	36.0	70	36.6	70	51.3	60	61.7		
aside	F	by	56	17.9	77	19.5	79	20.3	76	25.0	47	53.2		
ask	F	question	49	26.5	56	44.6	72	60.6*	63	64.1*	61	60.9*		
asleep	F	at rest	67	23.9	63	41.0	76	61.0	64	72.6*	56	64.9*		
asparagus	6	plant	49	16.3	56	26.0	72	25.0	63	31.7	61	41.0		
aspirin	4	drug	56	16.1	61	27.9	60	35.0	74	54.1	49	79.6*		
ass	6	donkey	75	24.0	80	20.4	77	27.3	74	44.6	72	40.3		
assemble	6	put together	60	20.0	67	19.4	79	13.9	61	32.1	62	41.9		
assembly	6	meeting	75	30.7	60	27.3	77	40.3	74	51.4	72	55.6		
assign	6	give	41	31.7	57	17.5	70	10.6	71	22.5	51	39.2		
assignment	6	task	67	29.9	70	22.9	73	23.7	72	19.4	73	21.9		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
assist	6	help	60	26.3	85	22.4	64	26.2	79	32.9	60	30.0		
assistance	6	help	65	24.6	61	19.7	90	20.0	67	23.9	73	32.9		
assistant	6	helper	59	32.2	56	20.6	49	36.7	67	41.8	55	36.4		
associate	6	join	60	22.1	60	20.0	65	29.2	65	36.9	71	40.8		
association	6	society	69	10.0	76	39.5	64	34.4	77	46.1	52	46.2		
assorted	6	different kinds	76	34.2	67	34.5	73	27.4	70	20.2	63	33.3		
assortment	6	collection	69	33.3	93	43.0	70	27.1	60	43.6	70	40.0		
assume	6	take for granted	59	20.3	70	44.3	76	39.5	64	46.9	56	30.0		
assurance	6	certainty	50	20.0	60	23.5	61	34.4	60	21.7	54	25.9		
assure	6	make certain	70	22.9	80	26.3	50	37.9	74	45.9	67	61.2		
assuredly	6	certainly	60	33.3	79	32.9	62	50.0	66	45.5	72	65.3		
aster	6	flower	64	35.9	72	20.0	60	16.3	76	19.7	50	22.0		
astonish	6	surprise	45	20.0	67	19.4	79	24.1	63	36.5	53	22.6		
astonishment	6	surprise	60	25.0	80	37.5	65	24.6	65	32.3	71	36.0		
astronomy	6	science dealing with stars	70	24.3	60	33.0	62	53.2	79	46.0	66	74.2*		
at	F	on	69	37.7	91	34.1	63	50.6	69	46.4	61	41.0		
athletic	6	physically strong	69	10.0	91	24.2	63	45.0	69	63.0	61	67.2*		
athletics	6	games and sports	44	34.1	76	34.2	86	39.8	59	55.9	55	63.6		
atlas	6	book of maps	49	26.5	56	35.7	72	41.7	63	47.6	61	63.9		
atmosphere	6	air	66	35.3	60	36.3	64	53.1	60	61.0	71	70.4*		
atmosphere	6	surrounding influence	60	20.6	60	17.5	65	33.8	65	50.8	71	66.2		
atop	6	on the top	45	37.0	60	41.2	79	53.2	57	61.4	51	36.6		
attach	6	fasten	67	28.4	70	37.1	73	39.7	72	54.2	73	46.6		
attachment	6	fastening	49	20.4	62	29.0	57	29.0	67	44.0	57	43.9		
attachment	6	fondness	59	27.1	70	20.0	76	20.9	64	20.1	56	6.9		

-14-

WORD	DALE GRADE	DEFINITION	AGES											
			6 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
attack	4	hit at	68	17.6	80	16.8	64	40.6	66	51.5	71	56.3		
attack	4	fit	60	25.0	70	28.6	79	49.4	82	35.4	38	39.5		
attempt	6	try	67	34.3	83	39.0	76	36.3	84	28.6	56	31.0		
attend	F	be present	59	20.8	86	22.1	61	34.4	68	30.6	63	34.0		
attendance	6	being present	52	26.9	75	34.7	65	42.4	64	42.2	52	63.5		
attention	F	heed	76	23.7	67	34.5	73	42.5	70	44.9	63	52.4		
attentive	6	thoughtful	75	24.0	64	35.7	67	43.7	69	53.6	76	47.4		
attic	4	space below roof	64	25.0	72	37.5	75	42.7	71	50.6	65	61.5		
attitude	6	way of thinking	84	31.0	86	20.0	66	37.9	89	42.7	62	51.6		
attorney	6	lawyer	75	24.0	84	32.1	67	32.2	69	30.4	76	30.2		
attract	6	draw	78	32.1	79	29.1	69	26.1	66	10.2	60	2.8		
attractive	4	pleasing	66	18.2	73	20.5	66	22.7	86	30.2	71	30.0		
attraction	6	charm	71	22.5	87	23.0	72	22.2	80	31.3	56	37.5		
auburn	6	brown	50	26.0	60	22.1	61	29.5	60	30.3	54	33.3		
auction	6	public sale	57	31.6	64	31.3	63	27.0	76	35.5	53	39.6		
audience	6	listeners	57	14.0	64	21.9	63	20.6	76	38.2	53	37.7		
auditorium	6	large room	65	10.5	71	29.6	75	42.7	66	59.1	60	56.7		
aunt	F	sister of one's father or mother	66	38.2	60	50.0	65	70.5*	65	83.1*	71	94.4*		
author	F	person who writes books	65	29.2	91	36.3	69	39.1	60	63.2	64	62.5		
authority	6	power	64	15.6	76	22.4	70	20.6	78	25.6	60	40.3		
auto	F	car	57	31.6	64	43.0	63	44.4	76	60.4*	53	73.6*		
autograph	6	signature	70	32.9	66	45.5	62	62.9	79	77.2*	66	72.7*		
automatic	6	moving itself	57	21.1	64	35.9	63	33.3	76	36.2	53	52.0		
autumn	F	season	57	26.3	64	32.0	63	47.6	76	61.0	53	67.9*		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9	10 + 11	12 + 13	14 + 15	16 + 17					
			N	N	N	N	N	N	X	N	X	
avenue	F	street	68	80	69	70	59	72.9*				
average	6	middle	75	86	77	74	72	47.2				
aviation	6	flying	68	71	74	67	63	19.0				
avoid	6	keep away from	56	77	79	76	47	51.1				
awake	F	not sleeping	60	57	66	64	53	96.0*				
awaken	F	stir up	70	95	72	77	61	54.1				
award	4	prize	67	70	73	72	73	72.6*				
aware	6	knowing	65	77	76	75	68	46.5				
away	F	gone	70	95	72	77	61	85.2				
awful	F	very bad	65	89	69	71	66	75.8*				
awfully	F	very	77	94	62	77	68	41.2				
awhile	F	for a short time	49	69	65	79	49	67.3				
awkward	6	clumsy	54	86	73	77	63	57.1				
awning	6	canvas	60	70	79	62	38	20.9				
ax	F	tool	48	70	59	66	57	93.0*				
axis	6	line about which an object turns	78	79	69	66	68	51.5				
axle	6	bar on which a wheel turns	68	80	65	65	71	54.9				
aye	6	yes	66	98	66	60	84	60.7				

WORD	DATE GRADE	DEFINITION	AGES											
			9 + 10		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
babe	F	baby	61	52.5	81	42.0	85	63.5	74	66.2	59	61.0		
baboon	4	monkey	78	41.0	79	43.0	69	52.2	66	59.1	60	67.6*		
baby	F	young child	77	35.1	94	50.5	62	64.5	77	84.4*	68	89.7*		
babyhood	4	time of being a baby	58	34.5	70	25.7	58	37.9	57	57.9	56	66.1		
bachelor	6	man who has not married	45	15.6	66	23.5	79	32.9	57	43.9	51	54.9		
back	F	rear	58	20.7	86	29.1	76	47.4	70	60.3	50	79.3*		
backbone	6	spine	70	21.4	69	26.1	87	39.1	67	52.2	57	57.9		
background	F	rear	58	17.2	86	27.9	76	30.3	70	43.6	50	46.6		
bacon	F	salted meat	60	31.7	67	44.8	79	67.1*	81	76.5*	62	85.5*		
bacteria	6	germs	50	32.0	66	17.6	61	34.4	60	38.3	54	64.8		
bad	F	not good	68	67.6*	80	81.3*	64	84.4*	68	98.5*	71	94.4*		
badge	F	tag	78	20.5	79	27.0	69	36.2	66	27.3	60	35.3		
badly	F	awfully	65	29.2	61	54.1	90	55.6	67	74.6*	73	79.5*		
bag	F	sack	67	35.0	83	43.4	76	65.8	84	79.0*	50	81.0*		
baggage	4	suitcases	50	16.0	68	35.3	61	50.0	60	60.3*	54	77.6*		
bagpipe	6	instrument	54	22.3	86	16.3	73	35.6	77	26.9	63	44.8		
baggy	6	loose	59	15.3	86	21.4	73	26.3	67	17.9	53	23.8		
bail	6	money	66	23.5	80	23.8	65	38.5	65	43.1	71	38.0		
bail	6	throw water out	49	34.7	56	30.4	72	22.2	63	22.2	61	27.9		
bait	4	trap for animals	49	22.4	69	40.6	65	36.9	79	49.4	49	61.2		
bake	F	cook	45	40.9	67	52.2	79	72.2*	63	82.5*	53	84.9*		
baker	F	person who makes breads	56	40.3	86	58.1	76	65.8	78	89.7*	58	87.9*		
bakery	F	bread shop	79	38.0	75	45.3	76	75.0*	83	83.1*	53	90.6*		
balance	4	make equal	44	31.8	76	22.4	88	39.8	59	37.3	55	69.1*		
balcony	4	upper floor	70	25.7	63	31.7	76	35.5	70	24.3	58	29.3		
bald	6	without hair	74	20.4	79	25.3	77	39.0	80	52.5	57	64.9		
bale	6	bundle	70	24.3	63	28.6	76	42.1	70	37.1	58	44.8		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
balk	6	refuse	50	16.0	93	16.3	63	30.2	76	27.6	69	21.7		
ball	F	anything round	68	39.7	71	43.7	74	26.4	67	37.3	63	46.0		
ball	C	party	70	42.9	69	50.7	87	75.5*	67	79.1*	57	67.7*		
ballad	6	song	66	16.2	71	19.7	74	16.2	67	26.9	63	30.2		
ballet	6	dance	50	36.0	68	38.2	61	47.5	60	48.3	54	70.4*		
balloon	F	toy	54	57.4	86	68.6*	73	71.2*	77	77.9*	63	87.3*		
ballot	6	voting-ticket	77	32.5	94	38.3	62	30.6	77	51.9	68	54.4		
ballroom	4	dance hall	54	16.7	86	41.9	73	52.1	77	57.1	63	65.1		
baloney	6	nonsense	54	24.1	86	18.6	73	24.7	77	28.6	63	30.2		
bamboo	6	grass	54	20.4	86	17.4	73	15.1	77	20.8	63	28.6		
banana	F	fruit	80	60.0	85	71.8*	84	78.6*	79	86.1*	60	93.3*		
band	F	group	70	21.4	80	31.3	58	25.9	74	45.9	67	58.2		
bandage	F	cloth	77	24.7	94	33.0	62	30.6	77	57.1	68	61.6		
bandit	4	robber	57	19.3	64	31.3	63	34.9	76	32.9	53	45.3		
banish	6	send away	68	19.1	80	30.0	64	20.3	68	33.8	71	26.8		
banishment	6	exile	76	12.7	87	29.9	73	15.1	70	23.1	63	11.1		
banister	4	railing	69	21.7	93	17.2	70	24.3	80	18.8	70	20.0		
bank	F	place for keeping money	79	44.3	75	65.3	76	82.9*	83	84.3*	53	94.3*		
bank	4	save	65	24.6	71	15.5	75	26.7	66	30.3	60	48.3		
bank	6	sides of river	59	30.5	86	53.5	61	65.6	88	79.5*	53	85.7*		
bankbook	4	account book	60	31.7	70	35.7	79	60.8	82	69.5*	38	73.7*		
banker	F	person who runs bank	50	42.0	68	45.6	61	65.6	60	71.7*	54	77.0*		
bankrupt	6	broke	57	22.8	64	23.4	63	22.2	76	26.3	53	32.1		
banquet	6	feast	54	16.7	86	16.3	73	27.4	77	41.6	63	57.1		
baptism	6	church admission	68	32.4	80	41.3	64	54.7	68	69.1*	71	71.8*		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
baptize	4	dip into water	68	27.9	80	25.0	65	46.2	65	49.2	71	66.2		
bar	6	group of lawyers	65	26.2	77	31.2	76	36.8	75	30.7	68	35.3		
bar	F	stick	57	24.6	64	26.6	63	38.1	76	39.5	53	47.2		
barbecue	6	roast	77	26.0	94	27.7	62	48.4	77	41.6	68	58.8		
barber	F	person whose business is cutting hair	68	44.1	80	57.5	69	69.6*	70	82.9*	59	78.0*		
bare	F	undressed	84	21.4	80	23.2	66	53.0	89	43.8	62	56.5		
bareheaded	6	nothing on the head	84	26.2	80	28.8	66	54.5	89	44.9	62	59.7		
barely	F	only just	54	20.4	86	16.3	73	23.3	77	28.6	63	39.7		
bargain	6	agreement to trade	58	17.2	86	17.4	76	38.2	78	42.3	58	46.6		
barge	6	boat	80	15.0	85	14.1	84	22.6	79	35.4	60	23.3		
bark	4	outside of tree	58	20.7	86	25.6	76	43.4	78	55.1	58	48.3		
barley	6	plant	45	31.1	68	19.1	79	26.6	57	31.6	51	39.2		
barn	F	stable	54	50.0	86	58.1	73	72.6*	77	80.5*	63	87.3*		
barometer	6	instrument for measuring	69	36.2	93	46.2	70	57.1	80	38.8	70	65.7		
barracks	6	building for soldiers	70	21.4	69	30.4	87	26.4	67	31.3	57	28.1		
barrel	F	tub	60	30.0	70	37.1	79	48.1	82	41.5	38	55.3		
barrier	6	wall	49	28.6	56	23.2	72	18.1	63	26.4	61	26.2		
base	F	bottom	59	20.3	70	34.3	76	43.4	64	59.4	56	64.3		
baseball	F	a game	76	46.1	91	74.7*	75	84.0*	85	87.1*	57	87.7*		
basement	F	cellar	78	17.9	82	50.0	82	52.4	85	75.3*	61	75.4*		
bashful	4	shy	66	34.8	73	32.9	69	33.3	70	47.1	66	60.6		
basic	6	elementary	70	22.9	69	37.7	87	44.8	67	43.3	57	40.4		
basin	6	bowl	64	43.8	72	34.7	75	24.0	81	16.0	65	18.5		
basketball	F	a game	78	57.7	79	70.9*	69	82.6*	66	100.0*	68	97.1*		
bass	4	a fish	74	23.0	79	35.4	77	29.9	80	38.8	57	59.6		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9	10 + 11	12 + 13	14 + 15	16 + 17					
			N	N	N	N	N	N	N	N	N	N
			%	%	%	%	%	%	%	%	%	%
bass	6	man's voice	57	64	63	76	53	43.4				
baste	6	sew	70	88	62	79	66	25.8				
baste	6	drip fat on meat	41	57	70	71	51	7.8				
bat	F	stick	48	70	59	66	57	68.4*				
batch	F	amount	84	80	66	89	62	29.0				
bath	F	tub	68	71	74	67	63	82.5*				
bathe	F	wash	52	75	85	64	52	82.7*				
bathroom	F	room	79	75	76	83	53	83.0*				
baton	6	stick	61	81	85	74	59	40.7				
batter	4	hit	61	81	85	74	59	54.2				
batter	4	player	52	75	85	64	52	63.5				
batter	6	cooking mixture	56	61	60	74	49	42.9				
battery	4	electric cell	68	80	69	70	59	81.4*				
battlefield	4	place where battle is fought	76	91	75	85	57	64.9				
battleship	F	armed vessel or warship	78	73	81	81	71	57.7				
bawl	6	weep	60	57	66	64	53	47.2				
bay	F	gulf	69	93	70	80	70	84.3*				
be	F	live	70	80	58	74	67	35.8				
beach	F	shore	79	75	76	83	53	69.0*				
beacon	6	light	76	73	81	61	71	22.5				
bead	F	ball or small round body	70	95	72	77	61	27.9				
beak	4	bird's bill	49	69	65	79	49	67.3*				

-20-

WORD	DALE GRADE	DEFINITION	AGES											
			9 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
beam	F	ray of light	45	20.0	67	31.3	79	30.4	63	30.1	53	47.2		
bean	F	vegetable	78	37.2	82	58.5	82	79.3*	85	82.4*	61	83.6*		
bear	6	carry	60	16.7	79	19.0	82	15.9	66	13.6	72	10.1		
bear	F	animal	50	54.0	93	65.6	63	85.7*	76	93.4*	69	92.0*		
beard	F	hair on man's face	60	23.3	83	31.3	75	30.7	79	63.3	60	66.7*		
bearer	6	carrier	66	30.3	73	17.8	69	11.6	70	25.7	66	37.9		
bearing	6	part of a machine	69	26.1	76	23.7	64	15.6	77	28.6	52	17.3		
beast	F	animal	51	19.6	63	27.0	66	50.0	53	55.5	53	64.2		
beat	F	strike	67	17.9	70	38.6	73	43.8	72	70.8*	53	65.8*		
beaten	4	defeated	71	31.0	87	26.4	72	43.1	80	51.3	56	67.9*		
beauteous	6	pretty	60	26.7	83	37.3	75	45.3	79	60.8	60	61.7		
beautiful	F	pretty	78	44.9	79	63.3	69	85.5	66	86.4*	68	92.6*		
beautify	F	make beautiful	50	34.0	93	49.5	63	57.1	76	69.7*	69	63.8		
beauty	F	good looks	74	35.1	79	40.1	77	61.0	80	60.0	57	75.4*		
beaver	4	animal	50	24.0	68	44.1	61	62.3	60	76.7*	54	77.0*		
because	F	for	66	24.2	90	30.6	66	39.4	60	50.7	84	81.0*		
beckon	6	signal	67	25.4	83	26.5	76	26.3	84	40.5	50	36.2		
become	F	change into	57	23.9	83	38.6	76	44.7	84	66.7*	50	77.6*		
becoming	6	attractive	56	31.0	86	29.1	76	34.2	70	50.0	50	31.0		
bed	F	cot	69	33.3	91	33.0	83	49.4	69	50.7	61	67.2*		
bedchamber	6	bedroom	76	40.8	91	37.4	75	48.0	85	47.1	57	54.4		
bedclothes	4	linen	44	13.6	76	36.8	88	45.5	59	54.2	55	63.6		
bedding	6	linen	66	24.2	73	27.4	69	21.7	70	18.6	66	28.8		
bedroom	F	room to sleep in	70	35.7	63	57.1	76	84.2*	70	92.9*	50	94.0*		
bedspread	F	cover	70	20.6	63	25.4	76	40.8	70	41.4	50	60.3		
bedstead	6	frame	69	27.5	93	20.4	70	25.7	80	31.3	70	84.3		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
bee	F	insect	49	24.5	62	59.7	57	59.6	67	82.1*	57	69.9*		
beech	F	tree	84	33.3	80	28.8	66	30.3	89	34.8	62	50.0		
beef	F	meat	63	23.8	82	52.4	71	74.6*	82	81.7*	67	90.9*		
beefsteak	F	slice of beef	65	21.5	89	41.6	69	63.8	71	87.3*	66	89.4*		
beehive	F	house for bees	80	32.5	75	32.0	76	40.8	66	57.6	62	69.4*		
beer	F	drink	64	40.6	76	47.4	70	84.3*	78	84.6*	60	93.3*		
beeswax	6	wax	76	35.9	79	29.1	69	46.4	66	57.6	68	63.2		
beet	F	plant	45	20.0	67	34.3	79	59.5	63	69.8*	53	79.2*		
beetle	4	insect	60	31.3	75	30.7	76	43.4	66	78.8*	62	74.2*		
before	F	earlier than	65	20.0	71	38.0	75	57.3	66	66.7*	60	60.0		
beforehand	6	ahead of time	70	10.6	80	30.0	58	34.5	74	35.1	67	43.3		
befriend	6	help	56	42.9	77	44.2	79	32.9*	76	44.7	47	51.1		
beg	F	ask	61	23.0	81	21.0	77	31.2	61	41.0	70	61.4		
beggar	F	poor person	64	15.6	76	27.6	70	37.1	78	28.2	60	63.3		
begin	F	start	70	24.3	80	41.3	58	37.9	74	68.9*	67	71.6*		
beginner	4	starter	45	4.4	68	23.5	79	36.7	57	71.9*	51	82.4*		
begone	6	go away!	78	39.7	79	36.7	69	43.5	66	47.0	68	63.2		
behave	F	act	76	14.5	91	27.5	75	32.0	85	42.4	57	66.7*		
behavior	6	conduct	45	6.7	67	16.4	79	13.9	63	25.4	53	34.0		
behind	F	in the rear	69	30.4	76	40.8	64	51.6	77	61.0	52	63.5		
belch	6	throw out gas	78	25.6	82	23.2	82	24.4	85	17.6	61	23.0		
belfry	6	tower for bells	75	10.7	84	14.3	87	18.4	69	24.6	76	31.6		
belief	4	way of thinking	76	25.0	91	18.7	75	32.0	85	47.1	57	45.6		
believe	F	trust	45	17.8	66	26.5	79	41.8	57	73.7*	51	70.4*		
bell	F	alarm	69	37.7	76	59.2	64	60.9	77	87.0*	52	90.4*		
bellboy	4	messenger	68	23.5	80	30.0	65	36.9	65	50.8	71	45.1		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9 N	10 + 11 Z	12 + 13 N	14 + 15 Z	16 + 17 N	18 + 19 Z				
bellow	6	roar	70	17.1	69	15.9	67	29.9	67	17.9	57	21.1
bellows	6	instrument for blowing air	66	20.6	60	32.5	65	26.2	65	46.2	71	43.7
belly	4	part of body	58	25.9	70	21.4	56	15.5	57	36.6	56	53.6
belong	F	be a member of	69	23.2	91	30.6	63	43.4	69	50.7	61	57.4
belongings	6	property	70	25.7	68	12.5	62	22.6	79	27.8	66	37.9
beloved	6	dear	61	23.0	81	33.3	85	35.3	74	45.9	59	52.5
below	F	under	60	28.3	67	25.4	79	50.6	61	59.3	62	66.1
belt	F	leather worn around body	67	29.9	83	51.0	76	71.1*	84	72.6*	58	66.2*
bench	F	seat	59	20.3	56	37.5	49	53.1	67	62.7	55	61.6
bend	F	curve	56	25.0	77	33.8	79	34.2	76	40.8	47	51.1
beneath	F	under	74	24.3	79	19.0	77	26.0	80	32.5	57	47.4
benefit	6	advantage	70	24.3	95	28.4	72	44.4	77	40.3	61	36.1
berry	F	fruit	76	48.7	87	52.9	73	69.9*	78	80.0*	63	90.5*
birth	6	place to sleep	65	26.2	91	27.9	90	38.9	67	26.9	73	28.8
beside	F	near	61	34.4	74	41.9	65	44.7	64	53.1	76	66.7*
besides	F	also	67	14.9	3	15.7	76	18.4	84	28.6	50	41.4
best	F	most good	67	47.8	70	51.4	73	70.1*	72	91.7*	73	86.3*
bet	F	chance	66	24.2	98	25.5	66	33.3	60	45.0	64	50.3
betray	6	give away	61	26.2	61	19.8	77	19.5	61	19.7	70	37.1
betrayal	6	bad faith	50	36.0	93	32.3	63	31.7	76	39.5	69	37.7
better	F	more good	80	46.3	85	42.4	84	67.9*	79	67.1*	60	91.7*
between	F	among	84	22.6	60	33.8	66	36.4	89	53.9	62	58.1
beverage	6	liquid for drinking	59	37.3	70	28.6	76	50.0	64	48.4	56	51.8
beware	6	be careful	50	34.0	53	37.6	63	50.7	76	56.6	69	50.7
bewilder	6	puzzle	60	46.7	67	26.9	79	22.8	61	28.4	62	27.4

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
bewitch	6	put under a spell	78	17.9	79	17.7	69	24.6	66	18.2	68	23.5
beyond	4	farther away	74	28.4	79	24.1	77	26.0	80	37.5	57	63.2
bib	F	apron	70	21.4	63	23.8	76	34.2	70	40.0	58	65.5
Bible	F	a book	63	38.1	82	51.2	71	69.0*	82	76.8*	67	86.6*
bicker	6	argue	70	10.0	80	20.0	58	24.1	74	31.1	67	23.9
bid	F	offer	44	29.5	76	22.4	88	27.3	59	33.9	55	43.6
big	F	large	68	23.5	74	50.0	76	76.3*	70	87.1*	69	91.3*
bigger	F	larger	59	42.4	86	54.7	61	75.4*	88	86.4*	63	92.1*
bigness	4	greatness	65	33.8	61	34.4	90	58.9	67	68.7*	73	68.5*
bill	F	charges	80	13.8	75	28.0	76	36.8	66	54.5	62	74.2*
billboard	F	sign	78	16.7	82	32.9	82	51.2	85	62.4	61	63.9
billion	6	thousand million	68	45.6	71	47.9	74	66.2	67	77.6*	63	81.0*
bin	F	box	45	35.6	68	27.9	79	19.0	57	31.6	51	23.5
bind	F	join	68	33.8	74	25.7	76	42.1	70	31.4	69	31.9
binder	6	wrapper	59	25.4	70	14.3	76	32.9	64	35.9	56	32.1
binding	6	wrapping	63	34.9	82	31.7	71	35.2	62	41.5	67	44.8
biography	6	life history	74	32.4	79	31.6	77	33.8	80	60.0	57	64.9
birch	6	tree	66	24.2	73	23.3	69	34.8	70	42.9	66	59.1
bird	F	animal	59	42.4	56	67.9*	49	81.6*	67	80.6*	55	96.4*
birth	F	start	66	36.4	73	31.5	69	29.0	70	48.6	66	54.5
birthday	F	day when born	66	24.2	73	45.2	69	72.5*	70	85.7*	66	87.9*
birthplace	4	place where a person is born	63	36.5	82	37.8	71	52.1	82	68.3*	67	82.1*
biscuit	F	cracker	61	19.7	81	27.2	85	36.5	74	47.3	59	55.9
bishop	6	church man	58	19.0	70	34.3	58	46.6	57	52.6	56	58.9

WORD	DATE GRADE	DEFINITION	AGES															
			9 + 10		10 + 11		11 + 12		12 + 13		13 + 14		14 + 15		15 + 16		16 + 17	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
bit	F	piece	61	19.7	74	36.5	85	49.4	64	57.8	76	65.4						
bit	6	cool	71	38.0	87	32.2	72	18.1	80	20.0	56	14.3						
bite	F	chew	60	23.3	57	40.4	66	47.0	64	50.0	53	71.7*						
biting	F	cutting	75	26.7	88	34.1	77	42.9	74	58.1	72	56.9						
bitter	F	sour	71	23.9	98	24.5	79	31.6	65	49.2	64	60.9						
bitterness	4	ill will	65	21.5	71	25.3	69	36.2	68	42.6	64	53.1						
bitterness	6	sourness	58	24.1	70	35.7	58	24.1	57	38.6	56	58.9						
black	F	color	70	54.3	86	65.9	62	82.3*	79	93.7*	66	90.9*						
blackberry	F	fruit	73	43.8	71	57.7	73	71.2*	72	83.3*	67	95.5*						
blackbird	F	bird	76	46.1	91	52.7	75	45.3	65	70.6*	57	71.9*						
blacken	6	stain	70	21.4	88	25.0	62	35.5	79	29.1	66	43.9						
blackness	F	darkness	79	36.7	75	26.7	76	61.8	83	69.9*	53	77.4*						
blacksmith	F	man who shoes horses	70	37.1	63	39.7	76	68.4*	70	75.7*	58	89.7*						
bladder	6	bag in body	66	31.8	73	34.2	69	26.1	70	35.7	66	42.4						
blade	4	cutting edge	41	29.3	57	28.1	70	38.6	71	54.9	51	66.7*						
blame	F	finding fault	67	19.4	70	17.1	73	50.7	72	61.1	73	65.6						
blameless	6	free from fault	75	12.0	88	17.0	77	40.3	74	45.9	72	58.3						
blank	F	empty	66	19.7	73	19.2	69	31.9	70	37.1	66	66.7*						
blanket	4	cover	60	18.3	57	33.3	66	56.1	64	62.5	53	81.1*						
blare	6	loud sound	80	32.5	75	26.7	76	36.8	66	30.3	62	46.8						
blast	F	sound	78	17.9	92	26.8	82	36.6	85	55.3	61	42.6						
blaze	F	fire	70	20.0	95	21.1	72	36.1	77	28.6	61	50.8						
bleach	6	whiten	63	27.0	82	19.5	71	40.8	82	37.8	67	52.2						
bleachers	6	benches	76	26.3	97	41.4	73	52.1	78	55.1	63	44.4						
bleed	F	lose blood	70	34.3	95	48.4	72	62.5	77	63.6	61	73.8*						
blend	6	mix together	63	28.6	82	34.1	71	35.2	82	53.7	67	62.7						
bless	F	make holy	68	29.4	80	36.3	69	62.3	70	65.7	59	72.9*						

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
blessing	F	a prayer	61	23.0	81	25.9	77	44.2	61	57.4	70	81.4*		
blind	F	not able to see	76	31.6	91	49.5	75	61.3	85	77.6*	57	86.0*		
blindfold	F	cover the eyes	54	24.1	86	39.5	73	58.9	77	71.4*	63	81.0*		
blindness	4	lack of sight	52	21.2	75	25.3	85	50.6	64	53.1	52	80.8*		
blinds	4	window shades	70	28.6	80	17.5	58	15.5	74	39.2	67	40.3		
blink	4	wink	59	30.5	70	42.9	76	34.2	64	32.8	56	41.1		
blissful	6	happy	69	31.9	76	27.6	64	25.0	77	26.0	52	21.2		
blister	6	a sore	71	21.1	98	30.6	79	31.6	65	41.5	64	60.9		
blizzard	4	snowstorm	70	22.9	88	25.0	62	48.4	79	64.6	66	69.7*		
block	6	keep from doing	78	29.5	79	36.7	69	29.0	66	40.9	68	45.6		
blockade	6	wall	78	30.8	73	27.4	81	44.4	81	40.7	71	53.5		
blockhead	6	fool	78	21.8	82	14.6	82	25.6	85	35.3	61	21.3		
blockhouse	6	fort	68	23.4	80	22.5	69	44.9	70	54.3	59	62.7		
blond	6	fair-haired	64	25.0	72	31.9	75	54.7	81	63.0	65	73.8*		
bloodcurdling	6	terrifying	70	27.1	80	27.5	58	27.0	74	41.9	67	38.8		
bloodhound	4	dog	57	22.8	64	35.9	63	38.1	76	55.3	53	66.0		
bloodshed	6	killing	68	26.5	74	36.5	76	51.3	70	52.9	69	59.4		
bloodshot	6	red	69	37.7	76	43.4	64	64.1	77	72.7*	52	75.0*		
bloom	F	flower	64	28.1	72	27.8	80	48.8	76	63.2	50	66.0		
blossom	F	flower	58	29.3	70	44.3	58	53.4	57	68.4*	56	82.1*		
blot	F	spot	70	22.9	80	33.8	58	25.9	74	21.6	67	28.4		
blotch	6	a spot	69	34.8	76	17.1	64	23.4	77	22.1	52	23.1		
blotter	6	paper for drying ink	56	30.4	61	29.5	60	41.7	74	37.8	49	46.9		
blouse	4	shirt	56	50.0	61	65.6	60	61.7	74	83.8*	49	81.6*		
blow	F	breath hard	51	21.6	63	36.5	66	65.2	53	66.0	53	77.4*		
blower	6	fan	64	28.1	72	40.3	75	46.7	81	50.6	65	58.5		
blowout	6	explode	70	30.0	95	35.7	72	59.7	77	59.7	61	68.9*		

WORD	DALE GRADE	DEFINITION	AGES									
			9 + 10		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
blubber	6	fat	78	25.6	82	20.7	82	18.3	85	28.2	61	27.9
blue	F	color	49	75.5*	69	71.0*	65	89.2*	79	92.4*	49	93.9*
bluebell	6	plant	49	28.6	56	26.6	72	27.6	63	38.1	61	37.7
blueberry	F	fruit	70	34.3	95	53.7	72	70.6*	77	81.8*	61	93.4*
bluebird	F	bird	65	26.2	61	59.0	90	63.3	67	65.7	73	76.7*
bluejay	F	bird	41	41.5	57	56.1	70	77.1*	71	81.7*	51	88.2*
blueprint	6	plan	71	18.3	98	22.4	79	27.8	65	23.1	64	32.8
bluff	4	pretend	84	28.6	80	28.8	66	30.3	69	24.7	62	37.1
bluff	6	cliff	61	34.4	61	37.0	85	36.5	74	39.2	59	35.6
bluish	6	somewhat blue	68	23.5	80	26.3	65	30.8	65	36.9	71	40.8
blunder	6	mistake	74	31.1	79	30.4	77	29.9	80	33.8	57	26.3
blunt	6	dull	50	20.0	93	25.8	63	25.4	76	39.5	69	31.9
blur	6	a smear	59	23.7	86	27.9	61	27.9	88	31.8	63	34.9
blurt	6	say suddenly	59	22.0	56	30.4	49	40.8	67	40.3	55	45.5
blush	F	grow red	64	31.3	72	36.1	75	28.0	61	33.3	65	35.4
boar	6	pig	63	34.9	82	35.4	71	23.9	82	28.0	67	40.3
board	F	piece of wood	60	31.7	83	42.2	75	44.0	79	70.9*	60	63.3
boardinghouse	6	hotel	50	38.0	93	34.4	63	52.4	76	69.7*	69	68.1*
boast	F	show off	63	36.5	82	28.0	71	29.6	82	40.2	67	49.3
boastful	6	bragging	67	19.4	70	17.1	73	36.4	72	41.7	73	43.8
boat	F	ship	80	55.0	85	65.9	84	78.6*	79	75.9*	60	93.3*
boating	4	sailing	69	30.4	91	41.6	83	67.5*	69	75.4*	61	91.8*
bob	F	move up and down	67	28.4	70	24.3	73	16.4	72	31.9	73	21.9
bobcat	4	wild cat	45	37.8	68	50.0	79	59.5	57	84.2*	51	90.2*
bobolink	6	bird	65	120.0	71	32.4	75	24.0	66	37.9	60	45.0
body	F	person	78	34.6	82	30.5	82	64.6	85	80.0*	61	78.7*
bodyguard	4	man who guards	68	32.4	80	33.8	65	43.1	65	52.3	71	53.5

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
boil	F	cook	68	35.3	80	41.3	69	53.6	70	74.3*	59	66.1		
boiler	F	tank	78	24.4	82	31.7	82	43.9	85	57.6	61	52.5		
bold	F	daring	65	15.4	61	24.6	90	23.3	67	29.9	73	23.3		
boldness	6	courage	60	18.3	79	22.8	82	22.0	66	30.3	72	38.9		
bolt	4	fasten	70	17.1	80	17.5	58	12.1	74	17.6	67	23.9		
bolt	6	screw	77	27.3	94	27.7	62	29.0	77	32.5	68	50.0		
bomb	6	container with explosives	74	26.4	79	27.6	77	51.9	80	66.3	57	75.4*		
bombard	6	attack	45	15.6	68	25.0	79	49.4	57	56.1	51	56.9		
bomber	4	airplane	65	30.8	77	32.5	76	46.1	75	60.0	68	63.2		
bond	6	certificate	67	19.4	70	31.4	73	39.7	72	52.8	73	50.7		
bonfire	6	blaze	64	26.6	72	34.7	80	40.0	76	51.3	50	72.0*		
bonnet	F	head covering	70	27.1	95	25.3	72	38.9	77	49.4	61	47.5		
bonus	6	something extra	68	10.3	74	33.6	76	39.5	70	45.7	69	52.2		
bony	6	very thin	56	22.4	70	22.9	58	27.6	57	35.1	56	37.5		
book	F	written sheets of paper	45	51.1	67	56.7	79	74.7*	63	90.5*	53	96.2*		
bookcase	F	furniture	61	19.7	74	24.3	85	30.6	64	34.4	78	32.1		
bookkeeper	F	clerk	80	27.5	85	30.6	84	41.7	79	48.1	60	78.3*		
bookkeeping	6	accounting	67	16.4	70	24.3	73	47.9	72	61.1	73	60.3		
booklet	4	little book	70	21.4	80	25.0	56	24.1	74	23.0	67	43.3		
bookrack	4	bookcase	70	50.0	95	58.9	72	62.5	77	79.2*	61	91.8*		
bookseller	6	salesman	56	27.6	70	46.6	56	55.2	57	66.7*	56	53.9*		
bookshelf	6	bookcase	78	32.1	82	42.7	82	48.8	85	64.7	61	67.2*		
boomerang	6	weapon	77	32.5	94	19.1	62	25.6	77	42.9	68	42.6		
boost	4	lift	70	18.6	95	29.5	72	20.8	77	7.8	61	26.2		
boot	F	shoe	56	53.6	77	64.9	79	75.9*	76	81.6*	47	91.5*		
booth	4	closed place	41	29.3	57	12.3	70	21.4	71	31.0	51	41.2		
border	6	edge	45	20.0	67	13.4	79	21.5	63	36.5	53	41.5		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	Z	N	Z	N	Z	N	Z	N	Z		
bore	4	make weary	69	20.3	76	11.4	64	29.7	77	32.5	52	51.9		
bore	6	make a hole	49	22.4	69	20.3	65	23.1	79	32.9	49	16.4		
born	7	brought forth	52	36.5	75	41.3	85	55.3	64	50.0	52	51.9		
borrow	7	ask a loan	78	39.7	82	36.6	82	34.1	85	50.6	61	60.7		
boss	7	chief	76	26.3	91	38.5	75	57.3	85	71.8*	57	78.9*		
both	7	two together	61	34.4	81	38.3	85	58.8	74	71.6*	59	84.7*		
bother	7	trouble	52	13.5	75	42.7	85	49.4	64	54.7	52	88.5*		
bothersome	6	annoying	61	23.0	81	18.5	77	26.0	61	26.2	70	45.7		
bottle	7	jar	57	29.8	64	54.7	63	74.6*	76	84.2*	53	90.6*		
bottom	7	lowest part	61	36.1	74	24.3	85	44.7	64	70.3*	78	80.8*		
bottomless	6	very deep	52	30.8	75	33.3	85	32.9	64	51.6	52	61.5		
bough	6	branch	64	25.0	76	35.5	70	30.0	78	24.4	60	25.0		
boulder	6	rock	52	26.9	75	20.0	65	16.5	64	16.6	52	17.3		
boulevard	6	street	64	18.8	72	20.8	75	25.3	81	27.2	65	40.0		
bounce	7	jump	84	32.1	60	50.0	66	42.4	89	48.3	62	53.2		
boundary	6	limiting line	71	23.9	87	39.1	72	34.7	80	42.5	56	75.0*		
boundless	6	not limited	84	17.9	80	32.5	66	45.5	89	44.9	62	45.2		
bouquet	6	bunch of flowers	65	43.1	77	46.8	76	51.3	75	62.7	68	54.4		
bow	6	part of ship	61	24.6	81	27.2	85	22.4	74	33.6	59	32.2		
bow	7	bend	56	25.0	61	34.4	60	35.0	74	54.1	49	61.2		
bowl	7	dish	76	27.6	91	47.3	75	64.0	85	65.9*	57	60.7*		
bowlegged	4	legs curved outward	59	15.3	56	23.2	49	32.7	67	29.9	55	30.9		
bowling	4	game	78	33.3	82	61.0	82	73.2*	85	80.0*	61	88.5*		
box	7	case	57	40.4	64	56.3	63	69.8*	76	64.5	53	69.8*		
boxcar	7	railroad car	64	39.1	76	34.2	70	48.6	78	48.7	60	51.7		
boxer	7	man who fights	79	19.0	75	20.0	76	43.4	83	50.6	53	67.9*		
boxer	6	dog	64	42.9	60	35.0	66	37.9	89	36.0	62	40.3		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
boy	F	male child	61	31.1	81	53.1	77	68.8*	61	82.0*	70	95.7*
boyish	6	youthful	66	25.8	98	20.4	66	45.5	60	61.7	84	73.8*
brace	6	support	61	18.0	81	25.9	65	23.5	74	28.4	59	37.3
brace	6	handle for a tool	60	31.7	57	28.1	66	37.9	64	46.9	53	60.4
bracelet	F	band worn around the arm	78	24.4	82	25.6	82	45.1	85	57.6	61	45.9
bracket	6	a support	61	16.4	81	24.7	85	27.1	74	21.6	59	23.7
brag	4	boast	71	22.5	87	25.3	72	31.9	80	30.0	56	58.9
braid	4	band formed by weaving hair	61	26.2	74	32.4	65	37.6	64	51.6	76	44.9
brain	F	mind	77	13.0	94	28.7	62	43.5	77	61.0	68	75.0*
brake	F	stop	69	36.2	76	38.2	64	51.6	77	68.8*	52	69.2*
bran	F	coverings of grain	70	27.1	63	17.5	76	40.8	70	44.3	56	48.3
branch	F	part of tree	75	24.0	84	35.7	67	46.0	69	66.7*	76	72.4*
branch	6	division	60	26.7	70	18.6	79	21.5	82	31.7	36	36.8
brand	4	kind	69	31.9	76	22.4	64	28.1	77	26.0	52	46.2
brand	4	mark	59	40.7	56	25.0	49	26.5	67	26.9	55	38.2
brandy	6	liquor	70	25.7	80	22.5	56	19.0	74	21.6	67	25.4
brass	F	metal	63	33.3	62	13.4	71	46.5	62	57.3	67	53.7
brat	4	kid	70	20.0	63	39.7	76	31.6	70	22.9	56	36.2
bravery	4	without fear	80	17.5	75	22.7	76	25.0	66	47.0	62	66.1
brawl	6	quarrel	78	34.6	82	25.6	82	25.6	85	48.2	61	39.3
bread	F	food	41	46.3	57	66.7*	70	72.9*	71	90.1*	51	94.1*
break	F	come apart	69	23.2	91	33.0	63	43.4	69	40.6	61	36.1
break	6	short interruption	70	21.4	63	27.0	76	35.5	70	41.4	56	46.6

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
breakable	4	easily broken	52	17.3	75	36.0	85	49.4	64	46.9	52	76.9*
breakdown	6	collapse	75	16.0	84	31.0	67	31.0	69	42.0	76	32.9
breakfast	F	meal	69	30.4	93	37.6	70	52.9	60	75.0*	70	86.6*
breast	F	chest	41	24.4	57	35.1	70	47.1	71	56.3	51	62.7
breath	F	air drawn into and out of the lungs	64	21.9	72	37.5	60	56.3	76	73.7*	50	76.0*
breathe	F	draw air into the lungs	67	14.9	70	35.7	73	53.4	72	73.6*	73	79.5*
breathless	6	out of breath	56	41.1	61	54.1	60	61.7	74	63.8*	49	77.6*
bred	6	raised	61	24.6	81	28.4	85	37.6	74	29.7	59	45.8
breeches	6	trousers	70	14.3	63	17.5	76	31.6	70	21.4	58	29.3
breed	6	a kind	74	23.0	79	29.1	77	26.0	80	35.0	57	35.1
breeding	6	training	70	25.7	95	31.6	72	27.6	77	31.2	61	45.9
breeze	F	wind	66	32.4	71	36.0	74	44.6	67	62.7	63	66.7*
breezy	4	windy	75	22.7	84	32.1	87	47.1	69	68.1*	76	66.4*
briar	6	plant	70	21.4	63	17.5	76	17.1	70	20.0	56	15.5
bribe	6	tempt	70	34.3	80	28.8	58	17.2	74	21.6	67	31.3
brick	F	block of clay	76	39.7	86	53.7	82	62.2	85	74.1*	61	66.9*
bride	F	woman just married	66	29.4	74	45.9	76	52.6	70	58.6	69	65.2
bridegroom	4	man just married	50	26.0	93	35.5	63	47.6	76	59.2	69	63.6
bridesmaid	6	woman at a wedding	57	26.1	64	26.6	63	46.0	76	46.7	53	54.7
bridge	F	something across a river or road	71	35.2	67	27.6	72	51.4	80	77.5*	56	62.1*
bridle	6	part of harness	76	22.4	67	29.9	73	28.8	78	41.0	63	47.6
brief	6	short	49	18.4	56	26.6	72	29.2	63	34.9	61	32.6
bright	F	giving light	71	32.4	67	46.3	72	63.9	80	61.3*	56	69.3*
brighten	4	shine	76	34.6	82	35.4	62	52.4	85	71.8*	61	75.4*
brightness	F	shining	54	29.6	66	51.2	73	66.5*	77	70.1*	63	65.7*
brilliance	6	brightness	44	43.2	76	44.7	66	42.0	59	47.5	55	65.5

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
brilliant	6	shining	56	26.6	61	23.0	60	30.0	74	29.7	49	34.7		
brim	6	edge	49	22.4	69	26.1	65	21.5	79	25.3	49	34.7		
bring	F	carry	59	42.4	56	60.7	49	77.6*	67	65.7*	55	70.9*		
brisk	6	lively	51	31.4	63	25.4	66	25.8	53	20.6	53	35.8		
bristle	6	short stiff hair	64	26.6	76	26.3	70	22.9	78	29.5	60	33.3		
broad	F	wide	74	26.4	79	25.3	77	40.3	80	41.3	57	42.1		
broadcast	F	make known	65	30.8	71	16.9	75	16.0	66	30.3	60	26.3		
broaden	6	widen	60	13.3	67	17.9	79	26.6	61	21.0	62	45.2		
broil	6	make hot	64	34.5	80	30.0	66	40.9	69	52.6	62	50.0		
broiler	6	' pan	66	14.7	80	16.3	65	33.8	65	30.6	71	40.8		
broke	6	out of money	56	26.6	77	24.7	79	41.6	76	50.0	47	74.5*		
broker	6	agent	61	23.0	81	29.6	85	24.7	74	23.0	59	26.6		
bronchitis	6	disease	66	39.4	90	36.6	66	33.3	60	41.7	84	46.6		
bronze	6	metal	44	9.1	76	23.7	88	13.6	59	25.4	55	50.9		
brook	F	stream	76	25.0	87	32.2	73	45.2	76	59.0	63	63.5		
broom	F	brush	70	35.9	79	44.3	69	71.0*	66	64.6*	66	60.9*		
broomstick	4	handle	56	25.9	66	36.0	76	43.4	78	55.1	56	75.9*		
broth	6	soup	45	24.4	66	25.0	79	19.0	57	26.3	51	19.6		
brother	F	son of the same parents	75	6.7	64	15.5	67	21.6	69	40.6	76	36.2		
brotherly	6	friendly	65	40.0	61	54.1	90	57.8	67	74.6*	73	79.5*		
brown	F	color	79	69.6*	76	76.9*	91	92.3*	64	93.8*	69	96.6*		
browne	4	chocolate cake	70	44.3	80	73.6*	58	70.7*	74	82.4*	67	69.6*		
browse	6	wander	79	25.3	75	26.7	76	31.6	63	24.1	53	17.0		
bruise	6	injury	76	22.4	67	27.6	73	32.9	78	34.6	63	55.6		
brunette	4	dark hair	41	46.8	57	24.6	70	32.9	71	39.4	51	35.3		

-32-

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
brush	F	broom	41	39.0	57	61.4	70	54.3	71	62.0	51	64.3*
brutal	6	cruel	70	27.1	95	24.2	72	25.0	77	36.4	61	36.1
brutality	6	savageness	71	25.4	96	32.7	79	29.1	65	49.2	64	35.9
brute	6	animal	73	9.0	82	12.2	82	12.2	85	14.1	61	9.6
bubble	F	round space filled with air	60	25.0	83	16.1	75	26.7	79	46.1	60	40.0
buck	6	jump	79	32.9	76	19.7	91	16.5	64	20.3	69	26.1
buck	6	male deer	78	28.2	79	31.6	69	44.9	66	43.9	60	51.5
bucket	F	pail	66	18.2	73	31.5	66	43.9	86	59.3	71	67.6*
buckle	F	fasten	70	14.3	63	22.2	76	22.4	70	24.3	58	31.0
buckshot	6	bullet	60	26.3	67	32.8	79	53.2	61	63.0	62	64.5
buckskin	6	leather	78	30.8	79	44.3	69	66.7*	66	66.2*	60	79.4*
buckwheat	6	plant	64	21.4	80	27.5	66	42.4	69	52.8	62	59.7
bud	F	begin to grow	76	30.6	62	32.9	62	42.7	65	64.7	61	47.5
buddy	4	pai	70	21.4	95	29.5	72	19.4	77	40.3	61	41.0
budge	6	move slightly	61	26.2	81	23.5	85	31.8	74	32.4	59	30.5
budget	6	plan for spending	69	21.7	93	30.1	70	31.4	80	33.8	70	51.4
buffalo	F	ox	59	22.0	66	34.9	61	54.1	88	61.4	63	73.0*
bug	F	insect	74	24.3	79	36.7	77	57.1	80	76.3*	57	82.5*
buggy	F	carriage	61	32.8	81	27.2	85	27.1	74	47.3	59	52.5
bugle	6	trumpet	44	31.8	76	39.5	88	55.7	59	50.8	55	67.3*
build	F	make	65	30.6	91	33.0	69	55.1	68	73.5*	64	75.0*
builder	4	maker	41	9.8	57	26.1	70	41.4	71	47.9	51	66.7*
building	F	house	61	31.1	61	56.0	85	75.3*	74	77.0*	59	89.8*
bulb	6	bud from which plants grow	65	23.1	71	32.4	75	21.3	66	33.3	60	31.7
bulge	6	swell	71	15.5	67	24.1	72	43.1	60	38.8	56	32.1
bulky	6	large	70	25.7	63	19.0	76	14.5	70	11.4	58	24.1

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
bull	F	male animal	65	15.4	71	49.3	75	64.0	66	74.2*	60	78.3*		
bulldog	4	dog	80	22.5	85	32.9	84	47.6	79	39.2	60	61.7		
bullet	F	lead shot from a gun	74	21.6	79	29.1	77	49.4	80	61.3	57	70.2*		
bulletin	6	news report	56	10.7	61	26.2	60	50.0	74	55.4	49	79.6*		
bullfrog	4	frog	60	23.3	83	30.1	75	45.3	79	51.9	60	48.3		
bully	6	person who teases	70	12.9	80	26.3	58	32.8	74	51.4	67	56.7		
bum	F	beggar	68	27.9	80	33.8	65	49.2	65	53.8	71	70.4*		
bumblebee	F	bee	57	33.3	64	42.2	63	34.9	76	42.1	53	47.2		
bump	F	heavy knock	54	22.2	86	47.7	73	43.8	77	53.2	63	66.7*		
bumper	4	bars that protect car	65	61.5	61	49.2	90	60.0	67	59.7	73	72.6*		
bumper	6	large	44	22.7	76	14.5	88	9.1	59	10.2	55	16.2		
bun	F	bread	59	28.8	56	37.5	49	53.1	67	55.2	55	56.4		
bunch	F	group of things	65	21.5	71	28.2	75	33.3	66	39.4	60	41.7		
bundle	F	package	79	15.2	76	32.9	91	46.2	64	57.8	69	63.8		
bungalow	6	small house	45	24.4	68	25.0	79	24.1	57	22.8	51	31.4		
bunion	6	sore	75	22.7	88	15.9	77	15.6	74	23.0	72	18.1		
bunk	6	bed	70	31.4	63	28.6	76	30.3	70	24.3	58	34.5		
bunny	F	rabbit	65	63.1	71	76.1*	75	93.3*	66	84.8*	60	95.0*		
bunt	6	push	60	35.0	67	16.4	79	19.0	81	35.8	62	33.9		
buoy	6	floating object	54	29.6	86	33.7	73	31.5	77	32.5	63	52.4		
burden	6	load	57	14.0	64	21.9	63	20.6	76	28.9	53	32.1		
burdensome	6	wearying	75	20.0	84	25.0	87	21.8	69	11.6	76	18.4		
bureau	6	chest	52	25.0	75	17.3	85	42.4	64	42.2	52	30.8		
bureau	6	office	78	12.8	73	11.0	81	9.9	81	13.6	71	26.8		
burglar	4	robber	49	22.4	69	15.9	65	26.2	79	34.2	49	40.8		
burglary	6	robbery	75	34.7	88	27.3	77	31.2	74	43.2	72	44.4		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
burial	6	funeral	66	19.7	73	19.2	69	31.9	70	42.9	66	62.1		
burlap	6	coarse material	71	29.6	98	25.5	79	30.4	65	40.0	64	35.9		
burn	F	be on fire	52	38.5	75	60.0	55	68.2*	64	75.0*	52	96.2*		
burner	4	heater	57	15.8	64	23.4	63	33.3	76	52.6	53	62.3		
burro	4	donkey	75	36.0	84	39.3	87	57.5	69	55.1	76	64.5		
burrow	6	dig	70	24.3	95	21.1	72	12.5	77	23.4	61	32.8		
burrow	6	hole in ground	74	35.1	79	27.8	77	41.6	80	47.5	57	49.1		
burst	F	break open	64	37.5	72	33.3	75	34.7	81	44.4	65	52.3		
bury	F	put in the earth	80	22.5	75	20.0	76	10.5	66	22.7	62	41.9		
bus	F	large automobile	61	31.1	81	44.4	85	54.1	74	74.3*	59	84.7*		
bush	F	plant	75	21.3	84	31.0	87	41.4	69	58.0	76	55.3		
bushel	F	measure	71	21.1	98	18.4	79	39.2	65	41.5	64	51.6		
bushy	6	growing thickly	45	22.2	67	41.8	79	44.3	63	73.0*	53	66.0		
busily	6	actively	66	33.3	73	23.3	69	39.1	70	70.0*	66	65.2		
business	F	job	44	20.5	76	35.5	88	52.3	59	62.7	55	78.2*		
bustle	6	move quickly	56	30.4	77	40.3	79	36.7	76	47.4	47	55.3		
busy	F	working	67	28.4	70	46.6	73	74.0*	72	91.7*	73	90.4*		
but	F	however	80	18.8	75	17.3	76	27.6	66	51.5	62	61.3		
butcher	F	meat seller	71	23.9	98	28.6	79	39.2	65	49.2	64	57.8		
butler	6	male servant	63	20.6	82	24.4	71	32.4	82	40.2	67	43.3		
butt	F	hit	80	22.5	85	27.1	84	27.4	79	21.5	60	26.7		
butt	6	end	75	18.7	84	20.2	87	27.6	69	18.8	76	19.7		
butter	F	fat from cream	71	29.6	98	44.9	79	59.5	65	73.8*	64	89.1*		
buttercup	F	plant	80	18.8	75	21.3	76	22.4	66	18.2	62	24.2		
butterfly	F	insect	74	36.5	79	38.0	77	62.3	80	78.9*	57	84.2*		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
buy	F	get by paying	70	35.7	95	36.8	72	56.9	77	75.3*	61	83.6*
buyer	6	shopper	69	33.3	76	31.6	64	45.3	77	67.5*	52	71.2*
buzzard	6	hawk	68	19.1	71	19.7	74	31.1	67	29.9	63	39.7
buzzer	6	alarm	60	18.3	79	19.0	82	46.3	66	57.6	72	58.3
by	F	near	56	19.6	61	34.4	60	38.3	74	56.8	49	69.4*
bygone	6	past	70	28.6	80	26.3	58	37.9	74	43.2	67	53.7
bystander	6	witness	48	27.1	70	14.3	59	15.3	66	18.2	57	38.6

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
cab	F	car	56	46.4	77	39.0	79	51.9	76	68.4*	47	85.1*
cab	6	covered part of truck	76	21.1	67	47.1	73	47.9	78	56.4	63	60.3
cabbage	F	vegetable	67	41.8	70	60.0	73	75.3*	72	91.7*	73	91.8*
cabin	F	small house	60	35.0	57	56.1	66	68.2*	64	68.8*	53	81.1*
cabinet	F	furniture	73	26.0	71	33.8	73	35.6	72	44.4	67	61.2
cabinet	6	men chosen to help the head of the nation	84	25.0	80	28.6	66	47.0	89	25.8	62	51.6
cable	6	strong rope	60	18.3	57	35.1	66	39.4	64	46.9	53	56.6
cablegram	6	telegram	64	25.0	72	37.5	75	42.7	81	48.1	65	55.4
caboose	4	car on a train	68	32.4	80	36.3	69	37.7	70	30.0	59	39.0
cactus	6	plant	73	37.0	71	26.6	73	27.4	72	51.4	67	64.2
cadet	6	man training to be an officer	46	33.3	70	15.7	59	25.4	66	22.7	57	31.6
cafe	4	eating house	49	30.6	56	35.7	72	36.1	63	69.8*	61	75.4*
cafeteria	6	restaurant	65	32.3	71	38.0	75	49.3	66	62.1	60	61.7
caffeine	6	drug	57	21.1	64	17.2	63	23.6	76	25.0	53	30.2
cage	F	place closed in	60	17.5	75	36.7	76	40.6	66	62.1	62	72.6*
calcium	6	substance which is part of milk	70	22.9	69	18.6	67	24.1	67	35.6	57	49.1
calculate	6	figure out	69	31.9	93	40.9	70	47.1	60	36.3	70	47.1
calendar	F	table showing days of the year	64	20.3	72	40.3	75	57.3	61	70.4*	65	73.8*
calf	F	young cow	67	40.3	83	59.0	76	77.6*	64	82.1*	56	66.2*
call	F	speak	66	24.2	90	34.7	66	50.0	60	63.3	84	79.0*
caller	F	visitor	65	33.8	71	43.7	75	48.0	66	50.0	60	40.0
calling	F	job	69	29.0	76	27.6	64	34.4	77	45.5	52	50.0
callous	6	hard	52	28.8	75	21.3	85	14.1	64	14.1	52	13.5
calm	6	quiet	45	28.9	68	29.4	79	38.0	57	63.2	51	74.5*
camel	F	animal	70	54.3	80	66.3	58	69.0*	74	83.8	67	89.6*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
camera	4	machine for taking pictures	64	25.0	72	52.8	75	68.0*	81	35.2*	65	34.6*
camouflage	6	disguise	78	16.7	73	16.4	81	27.2	81	33.3	71	29.6
camp	F	group of tents	76	26.9	79	39.2	69	69.6*	66	34.8*	68	89.7*
campaign	6	series of activities to get something	80	42.5	75	32.0	76	23.7	66	21.2	62	35.5
campfire	F	blaze	73	11.0	71	35.2	73	31.5	72	31.9	67	47.0
campus	6	school grounds	70	39.7	79	48.1	69	53.6	66	72.7*	68	79.4*
can	F	tin	78	37.2	73	38.4	81	32.1	81	35.8	71	32.4
canal	4	channel	70	26.2	62	43.9	82	47.6	85	64.7	61	52.5
canary	F	bird	50	26.0	68	29.4	61	24.6	60	46.7	54	57.4
cancel	6	cross out	67	43.3	70	27.1	73	31.5	72	46.6	73	49.3
cancer	6	growth in the body	41	19.5	57	22.8	70	34.3	71	49.3	51	68.6*
candidacy	6	running for office	59	13.6	70	27.1	76	32.9	64	40.6	56	35.7
candidate	6	person who seeks office	58	25.9	86	32.6	76	42.1	78	46.2	58	60.3
candied	6	sweetened	59	33.9	56	33.9	49	46.9	67	56.7	55	49.1
candle	F	stick of wax	66	28.8	98	37.8	66	54.5	60	71.7*	84	66.7*
candlestick	F	holder	50	28.0	93	28.0	63	50.8	76	68.4*	69	60.9
candy	F	a sweet	79	26.6	76	47.4	91	63.7	64	81.3*	69	89.9*
cane	F	stick	70	24.3	69	31.9	87	47.1	67	52.2	57	66.7*
cannery	6	factory	80	26.3	75	29.3	76	32.9	66	39.4	62	41.9
cannibal	6	person who eats human flesh	61	18.0	81	25.9	85	27.1	74	44.6	59	39.0
cannon	F	gun	68	41.2	80	31.3	64	29.7	68	42.6	71	45.1
canoe	F	boat	54	29.6	86	48.8	73	52.1	77	71.4*	63	77.8*
canteen	6	container for water	69	27.5	91	25.3	83	33.7	69	42.0	61	39.3
canvas	6	cloth	49	36.7	62	27.4	57	28.1	67	20.9	57	40.4
canyon	F	valley	58	41.4	86	33.7	76	28.9	78	55.1	58	70.7*
cap	F	hat	50	66.0	93	66.7*	63	85.7*	76	88.2*	69	94.2*

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
capable	6	able	65	24.6	61	31.1	90	34.4	67	35.8	73	35.6		
cape	F	wrap	66	29.4	74	33.6	76	40.0	70	47.1	69	36.2		
cape	6	point of land	69	15.9	93	20.4	70	20.6	80	31.3	70	44.3		
capital	4	seat of government	54	10.5	66	40.7	73	54.0	77	63.6	63	77.8*		
capital	F	chief	79	27.3	76	36.2	91	37.4	64	65.6	69	65.2		
captain	F	chief	60	26.5	80	32.5	69	63.0	70	64.3	59	79.7*		
captive	6	prisoner	70	11.5	82	23.2	62	40.2	85	40.2	61	45.9		
captivity	6	being in prison	70	17.1	80	26.3	50	36.2	74	45.9	67	46.3		
capsule	6	case	64	29.7	76	10.4	70	22.9	70	29.5	60	20.3		
capture	6	take by force	40	16.7	70	24.3	59	22.0	66	45.5	57	54.4		
car	F	automobile	40	27.1	70	42.9	59	54.2	66	90.9*	57	91.2*		
caramel	4	candy	79	40.5	76	36.0	91	36.3	64	45.3	69	36.2		
caravan	6	travelers	54	30.9	66	36.0	73	42.5	77	46.0	63	54.0		
carbon	6	substance that coal & charcoal are made of	65	16.9	69	27.0	69	39.1	71	53.5	66	56.1		
card	F	paper	64	40.6	72	50.0	75	76.0*	61	67.9*	65	75.4*		
cardboard	F	stiff paper	61	21.3	74	37.0	85	57.6	64	70.1*	70	74.4*		
cardinal	6	bird	70	24.3	95	50.5	72	47.2	77	50.4	61	67.2*		
cardinal	6	red	69	29.0	93	32.3	70	57.1	80	51.3	70	50.6		
care	F	worry	65	33.0	71	36.6	75	42.7	66	57.6	60	60.3*		
career	6	occupation	70	32.9	95	41.1	72	30.9	77	40.1	61	72.1*		
careful	F	on guard	51	19.6	63	28.6	66	33.3	53	37.7	53	49.1		
careless	F	done without thought	61	23.0	81	22.2	85	38.8	74	59.5	59	62.7		
caretaker	6	keeper	70	20.2	79	26.6	69	50.0	66	69.7*	60	65.3*		
cargo	6	freight	71	10.3	98	24.5	79	40.5	65	43.1	64	60.9		
carnation	6	flower	79	39.2	76	26.3	91	25.3	64	25.0	69	27.5		

WORD	DATE GRADE	DEFINITION	AGES									
			9 + 10		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
carfulval	6	place of amusement	65	27.7	71	23.9	75	36.0	66	50.0	60	46.7
carol	6	song	61	27.9	74	28.4	85	42.4	64	50.0	78	47.4
carpenter	F	worker who builds	75	34.7	84	42.9	87	43.7	69	58.0	76	63.2
carpet	F	rug	59	32.2	56	30.4	49	42.9	67	28.4	55	49.1
carriage	F	wagon	60	25.0	71	30.0	74	40.6	67	56.7	63	50.8
carrier	6	messenger	69	20.3	91	33.0	83	41.0	69	43.5	61	60.7
carrot	F	plant	49	36.7	62	56.5	57	73.7*	67	80.6*	57	89.5*
cart	F	wagon	64	32.8	76	30.3	70	44.3	78	61.5	60	66.7*
carton	6	box	74	27.0	79	30.4	77	33.8	80	27.5	57	45.6
cartoon	4	drawing	60	22.1	71	36.6	74	44.6	67	61.2	63	71.4*
cartoonist	6	artist	73	23.3	71	43.7	73	37.0	72	51.4	67	71.6*
cartridge	6	case	80	31.3	85	36.5	84	39.3	79	44.3	60	53.3
carve	F	cut	67	43.3	70	38.6	73	23.3	72	40.6	73	34.2
carving	6	sculpture	45	28.9	68	30.9	79	32.9	57	43.9	51	51.0
case	F	box	65	40.0	71	39.4	75	50.7	66	51.5	60	66.7*
case	6	matter for a court	73	32.9	71	28.2	73	21.9	72	25.0	67	20.9
cash	F	money	67	17.9	70	38.6	73	49.3	72	77.8*	73	83.6*
cashier	F	person in charge of money	60	33.3	67	35.8	79	45.6	81	65.4	62	74.2*
cashmere	6	wool	69	23.2	91	16.5	83	9.6	69	20.3	61	14.8
cask	6	barrel	58	22.4	86	26.7	76	22.4	78	50.0	58	55.2
casket	6	coffin	58	43.1	86	38.4	76	32.9	78	52.6	58	58.6
casseroles	6	dish	69	29.0	91	23.1	83	31.3	69	27.5	61	29.5
castle	F	building	65	13.6	71	43.7	75	57.3	66	60.6	60	70.0*
cat	F	animal	70	40.6	80	62.5	58	67.2*	74	85.1*	67	97.0*
catalogue	6	list	79	24.1	75	21.3	76	27.6	83	20.5	53	45.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
catbird	F	bird	76	27.6	87	35.6	73	39.7	78	52.6	63	52.4
catch	F	take and hold	66	30.3	73	38.4	69	52.2	70	77.1*	66	84.8*
catcher	F	player	78	33.3	82	42.7	82	42.7	85	61.2	61	75.4*
catfish	F	fish	50	36.0	68	54.4	61	73.8*	60	63.3*	54	85.2*
cathedral	6	church	80	32.5	75	40.0	76	40.6	66	53.0	62	58.1
cattle	F	animals	66	27.3	73	45.2	66	74.2*	86	73.3*	71	77.5*
cauliflower	6	vegetable	69	33.3	91	45.1	83	59.0	69	56.5	61	68.9*
cause	F	make happen	69	20.3	91	28.6	83	45.2	69	50.7	61	67.2*
caution	6	being careful	70	22.9	66	23.9	62	50.0	79	64.6	66	66.7*
cautious	6	careful	44	22.7	76	26.3	88	34.1	59	44.1	55	56.4
cavalry	6	soldier	50	20.0	66	30.9	61	36.1	60	38.3	54	59.3
cave	F	den	56	32.1	61	34.4	60	33.3	74	54.1	49	53.1
cavern	6	cave	49	16.3	62	38.7	57	64.9	67	71.6*	57	82.5*
cavity	6	hole	44	22.7	76	13.2	88	28.4	59	37.3	55	41.8
cease	6	stop	71	28.2	87	20.7	72	25.0	80	28.8	56	50.0
cedar	6	tree	69	15.9	93	12.9	70	21.4	80	26.3	70	44.3
ceiling	F	top of a room	56	26.8	77	26.6	79	39.2	76	50.0	47	57.4
celebrate	4	make merry	66	27.3	73	24.7	69	24.6	70	45.7	66	53.0
celebration	4	festival	65	20.0	71	42.3	75	48.0	66	57.6	60	51.7
celebrity	6	famous person	68	25.0	71	32.4	74	51.4	67	56.7	63	58.7
celery	6	vegetable	79	30.4	76	53.9	91	65.9	64	76.6*	69	82.6*
cell	F	room	68	20.6	74	24.3	76	31.6	70	28.6	69	30.4
cell	6	living matter	60	15.0	67	26.9	79	34.2	81	45.7	62	61.3
cellar	F	basement	50	22.0	66	23.5	61	32.8	60	21.7	54	55.6
cello	6	instrument	66	16.2	74	24.3	76	32.9	70	40.0	69	39.1
cellophane	6	transparent substance	61	23.0	81	18.5	77	26.0	61	31.1	70	48.6

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
cemetery	6	graveyard	70	15.7	50	23.3	58	25.9	74	50.0	67	65.7
cent	F	coin	63	36.8	71	45.1	74	64.9	67	86.6*	63	81.0*
center	F	middle	63	14.7	71	21.1	74	33.8	67	62.7	63	68.3*
central	6	middle	58	32.8	86	24.4	76	38.2	78	52.6	58	60.3
century	6	one hundred years	66	22.7	73	27.4	69	29.0	70	50.0	66	65.2
cereal	F	grain	70	30.0	63	41.3	76	53.9	70	65.7	58	72.4*
ceremony	6	service	70	31.4	80	46.3	58	39.7	74	62.2	67	67.2*
certain	F	sure	69	29.0	76	19.7	64	28.1	77	46.8	52	53.8
certainly	F	surely	66	22.7	98	31.6	66	34.8	60	45.0	84	58.3
certainty	6	freedom from doubt	70	32.9	63	42.9	76	34.2	70	38.6	58	25.9
certificate	6	written statement	79	15.2	76	19.7	91	31.9	64	45.3	69	52.2
chain	F	tie	68	17.6	80	33.8	64	37.5	68	47.1	71	50.7
chair	F	seat	59	33.9	56	44.6	49	55.1	67	67.2*	55	69.1*
chairman	6	person in charge	45	17.3	67	31.3	79	22.8	63	31.7	53	37.7
challenge	4	dare	74	16.2	79	12.7	77	19.5	80	23.8	57	31.6
challenger	6	person who challenges	75	18.7	84	33.3	87	49.4	69	55.1	76	55.3
chamber	6	room	60	20.0	67	19.4	79	12.7	81	21.0	62	24.2
champion	F	winner	50	16.0	63	32.4	61	50.3	60	63.3	54	79.6*
championship	6	first place	64	32.8	72	33.3	80	38.8	76	65.8	50	80.0*
chance	F	luck	79	19.0	76	30.3	91	23.1	64	23.4	69	37.7
change	F	make different	49	26.5	56	32.1	72	59.7	63	73.0*	61	83.6*
change	6	money returned	66	34.8	98	22.4	66	53.0	60	76.7*	84	81.0*
changeable	4	movable	69	23.2	76	19.7	64	28.1	77	54.5	52	55.8
channel	6	bed of a stream	67	26.9	83	13.3	76	21.1	84	32.1	58	27.6
chant	6	song	50	20.0	68	11.8	61	16.4	60	18.3	54	25.9
chap	6	boy	78	21.8	73	27.4	81	16.0	61	13.6	71	14.1
chap	F	make rough	58	17.2	70	21.4	58	17.2	57	28.1	56	46.4

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
chapel	6	building for worship	79	13.9	76	32.9	91	28.6	64	37.5	69	58.0
chaps	6	leather trousers	74	13.5	79	24.1	77	18.2	80	28.8	57	19.3
chapter	6	division of a book	76	35.5	87	19.5	73	34.2	78	66.7*	63	65.1
character	6	nature	68	27.9	80	28.8	65	24.6	65	32.3	71	31.0
charcoal	6	black substance	79	25.3	76	28.9	91	42.9	64	53.1	69	59.4
charge	F	cost	49	24.5	62	30.6	57	33.3	67	49.3	57	54.4
charger	6	horse ridden in a war	74	27.0	79	32.9	77	24.7	80	27.5	57	26.3
chariot	6	carriage	60	23.3	63	39.8	75	30.7	79	32.9	60	31.7
charity	6	giving	54	25.9	86	15.1	73	21.9	77	11.7	63	25.4
charm	F	spell	63	34.9	82	30.5	71	29.6	62	13.4	67	22.4
charming	6	pleasing	56	26.8	61	29.5	60	26.7	74	45.9	49	67.3*
chart	F	map	68	26.5	60	31.3	65	43.1	65	60.0	71	46.5
chase	F	run after	49	32.7	56	39.3	72	58.3	63	52.4	61	65.6
chat	6	talk	60	18.3	63	24.1	75	17.3	79	48.1	60	40.0
chatter	F	talk	74	28.4	79	31.6	77	27.3	80	35.0	57	40.4
chauffeur	6	driver	69	14.5	91	29.7	83	26.5	69	31.9	61	32.8
cheap	F	costing little	63	22.2	82	29.3	71	33.8	82	50.0	67	70.1*
cheapened	6	lowered the value	78	25.6	82	28.0	82	43.9	85	54.1	61	57.4
check	F	mark	64	31.3	76	39.5	70	47.1	78	61.5	60	68.3*
check	6	stop	70	30.0	95	23.2	72	18.1	77	11.7	61	13.1
checked	6	plaid	76	28.9	91	19.8	75	26.0	65	38.8	57	45.6
checkers	F	game	73	39.7	71	43.7	73	43.8	72	45.8	67	67.2*
cheek	F	side of the face	64	25.0	76	32.9	70	34.3	78	41.0	60	68.3*
cheer	F	delight	69	17.4	93	37.6	70	40.0	80	36.6	70	46.6
cheerful	6	glad	70	24.3	60	37.5	58	37.9	74	62.2	67	68.7*
cheery	6	gay	75	16.0	84	23.8	87	32.2	69	46.4	76	50.0

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
cheese	F	food	49	30.6	62	62.9	57	82.5*	67	82.1	57	94.7*
chef	6	cook	59	42.4	86	43.0	61	42.6	88	42.0	63	58.7
chemical	6	of chemistry	68	27.9	80	28.8	64	35.9	68	45.6	71	57.7
chemist	6	person who makes chemistry his occupation	69	26.1	93	39.8	70	41.4	80	50.0	70	54.3
chemistry	6	science	78	33.3	79	50.6	69	53.6	66	59.1	68	75.0*
cherry	F	fruit	70	38.6	63	65.1	76	82.9*	70	94.3*	58	96.6*
chess	6	game	76	27.6	67	26.4	73	41.1	78	55.1	63	54.0
chest	F	part of a person's body	61	32.3	61	32.1	65	50.6	74	64.9	59	76.3*
chestnut	6	nut	74	17.6	79	27.8	77	24.7	80	37.5	57	56.1
chew	F	crush with the teeth	64	26.6	76	51.3	70	54.3	78	65.4	60	76.7*
chick	F	young chicken	74	26.4	79	36.7	77	39.0	80	58.8	57	71.9*
chickadee	6	bird	60	31.7	79	56.2	62	56.5	66	68.2*	72	75.0*
chicken	F	young hen	50	42.0	93	52.7	63	82.5*	76	88.2*	69	87.0*
chief	F	head	64	26.1	72	22.2	80	26.3	76	47.4	50	46.0
chieftain	6	leader	61	29.5	81	34.6	85	34.1	74	43.2	59	62.7
child	F	boy or girl	60	40.0	67	62.7	79	79.7*	81	80.2*	62	85.5*
childbirth	6	giving birth	79	22.6	75	20.0	76	34.2	83	33.7	53	45.3
childhood	F	youth	68	25.0	60	23.6	69	27.5	70	45.7	59	42.4
childish	6	silly	70	37.1	95	35.8	72	38.9	77	44.2	61	57.4
chill	F	make cold	67	35.8	70	27.1	73	31.5	72	55.6	73	49.3
chilly	F	cold	75	42.7	84	40.5	67	34.5	69	49.3	76	60.5
chime	6	bells	61	29.5	74	20.3	85	12.9	64	31.3	78	21.8
chimpanzee	6	ape	66	33.3	73	37.0	66	47.0	86	51.2	71	53.5
chin	F	front of the lower jaw	60	18.3	67	25.4	79	29.1	81	46.9	62	67.7*
china	F	dishes	60	21.7	79	22.6	82	36.6	66	48.5	72	36.1
chip	F	piece	68	22.1	80	35.0	65	33.6	65	53.8	71	70.4*

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
chipmunk	F	squirrel	64	28.1	76	48.7	70	67.1*	76	65.4	60	83.3*		
chisel	4	tool	67	43.3	70	34.3	73	32.9	72	44.4	73	38.4		
chocolate	F	candy	61	36.1	81	56.8	85	77.6	74	83.8*	59	88.1*		
choice	F	pick	57	29.8	64	17.2	63	19.0	76	30.3	53	41.5		
choir	6	singers	57	21.1	64	42.2	63	36.5	76	46.1	53	64.2		
choke	4	stop the breath	41	24.4	57	26.3	70	28.6	71	43.7	51	41.2		
choose	F	pick	70	18.6	63	33.3	76	44.7	70	55.7	58	75.9*		
chop	F	cut	60	41.7	57	54.4	66	50.0	64	45.3	53	64.2		
chop	6	meat	78	30.8	73	37.0	81	43.2	81	50.6	71	60.6		
chord	6	notes of music	78	26.9	82	25.6	82	31.7	85	36.5	61	29.5		
chose	6	job	78	21.8	82	28.0	82	24.4	85	36.5	61	24.6		
chorus	F	song	49	30.6	69	26.1	65	36.9	79	32.9	49	63.3		
chowder	6	soup	71	22.5	98	22.4	79	24.1	65	26.2	64	21.9		
christen	F	name	74	25.7	79	26.6	77	27.3	80	21.3	57	36.8		
chrysanthemum	6	flower	56	25.0	77	37.7	79	24.1	76	26.3	47	23.4		
chubby	6	plump	66	36.8	74	29.7	76	32.9	70	40.0	69	24.6		
chum	4	friend	59	25.4	86	22.1	61	32.8	88	33.0	63	33.3		
chunk	4	thick piece	44	27.3	76	14.5	88	33.0	59	33.9	55	43.6		
church	F	house of prayer	70	42.9	63	57.1	76	81.6*	70	81.4*	58	93.1*		
churchman	4	minister	74	41.9	79	40.5	77	58.4	80	77.5*	57	80.7*		
churchyard	4	graveyard	70	25.7	95	34.7	72	55.6	77	64.9	61	73.8*		
churn	F	shake up	78	41.0	73	23.3	81	24.7	81	38.3	71	31.0		
churn	4	machine in which butter is made	59	27.1	86	33.7	61	42.6	88	42.0	63	38.1		
chute	6	slide	74	33.8	79	25.3	77	28.6	80	20.0	57	42.1		
cider	4	juice	84	35.7	80	33.8	66	42.4	89	50.6	62	54.8		
cigar	4	tobacco for smoking	65	27.7	71	36.6	75	54.7	66	68.2*	60	75.0*		
cigarette	F	tobacco for smoking	54	33.3	86	45.3	73	58.9	77	71.4*	63	81.0*		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
cinch	6	easy	61	16.4	74	13.5	85	16.5	64	21.9	78	26.9
cinder	6	burned wood	80	25.0	75	22.7	76	22.4	66	24.2	62	25.8
cinnamon	4	spice	79	30.4	75	30.7	76	57.9	83	57.8	53	71.7*
circle	F	ring	79	32.9	76	44.7	91	63.7	64	79.7*	69	81.2*
circular	6	round	41	24.4	57	31.6	70	32.9	71	39.4	51	60.8
circulation	6	going around	68	23.5	71	23.9	74	45.9	67	55.2	63	68.3*
circulatory	6	having to do with circulation	58	36.2	70	38.6	58	37.9	57	45.6	56	62.5
circumstance	6	condition	57	17.5	64	37.5	63	38.1	76	35.5	53	43.4
circus	F	show	68	33.8	80	60.0	65	69.2*	65	80.0*	71	90.1*
citizenship	6	rights of a citizen	65	16.9	77	22.1	76	30.3	75	26.7	68	51.5
citrus	6	any tree bearing oranges or lemons	65	18.5	71	22.5	75	33.3	66	27.3	60	38.3
city	F	town	69	42.0	93	51.6	70	62.9	80	75.0*	70	88.6*
civics	6	study of rights of citizens	79	30.4	76	23.7	91	38.5	64	50.0	69	63.8
civil	6	of a citizen	76	23.1	82	41.5	82	46.3	85	64.7	61	63.9
civilization	6	ways of living	68	27.9	74	29.7	76	30.3	70	45.7	69	52.2
civilize	6	change from being savage	68	26.5	71	26.8	74	48.6	67	43.3	63	47.6
claim	6	demand	78	20.5	79	24.1	69	36.2	66	31.8	68	44.1
clam	6	animal	52	25.0	75	22.7	85	36.5	64	40.6	52	42.3
clamp	6	clip	74	47.3	79	46.8	77	53.2	80	50.0	57	61.4
clarinet	6	instrument	50	26.0	68	23.5	61	36.1	60	43.3	54	37.0
clasp	6	fasten	61	39.3	74	31.1	85	29.4	64	34.4	78	42.3
class	F	group	66	25.8	73	42.5	69	56.5	70	81.4*	66	86.4*
classic	6	excellent	58	27.6	86	31.4	76	21.1	78	33.3	58	25.9
classical	6	excellent	56	30.4	77	29.9	79	46.8	76	50.0	47	42.6
classification	6	arrangement	76	26.3	91	29.7	75	41.3	85	52.9	57	50.9
classify	6	arrange	61	23.0	74	35.1	85	34.1	64	40.6	78	51.3

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9 N	%	10 + 11 N	%	12 + 13 N	%	14 + 15 N	%	16 + 17 N	%
classmate	F	member of the same class	70	30.0	95	33.7	72	56.9	77	68.8*	61	78.7*
classroom	F	schoolroom	69	58.0	76	65.8	64	76.6*	77	90.9*	52	98.1*
claw	F	nail	50	32.0	93	40.9	63	41.3	76	46.1	69	42.0
clay	F	earth	60	38.3	79	27.8	82	26.8	66	30.3	72	44.4
clean	F	free from dirt	70	32.9	95	47.4	72	56.9	77	61.0	61	63.9
cleanliness	6	being clean	78	26.9	82	31.7	82	45.1	85	60.0	61	50.8
cleanse	6	bathe	61	26.2	81	37.0	77	48.1	61	63.9	70	68.6*
clear	F	clean	79	39.2	75	44.0	76	77.6*	63	74.7*	53	66.8*
clearance	6	space	60	25.0	57	21.1	66	27.3	64	23.4	53	45.3
clench	6	close	64	35.9	76	36.8	70	14.3	78	20.5	60	30.0
clerk	F	office worker	70	24.3	88	28.4	62	40.3	79	54.4	66	63.6
clever	F	bright	60	17.5	75	16.0	76	18.4	66	36.4	62	38.7
cleverness	6	skill	52	23.1	75	29.3	85	25.9	64	21.9	52	55.8
cliff	F	steep rock	65	16.9	61	31.1	90	27.8	67	50.7	73	45.2
climate	6	weather	57	33.3	64	28.1	63	34.9	76	46.1*	53	60.4
climb	F	go up	60	30.0	79	43.0	82	63.4	66	69.7*	72	73.6*
clinch	6	fasten	66	25.8	73	27.4	66	19.7	86	29.1	71	35.2
cling	6	stick	79	15.2	75	21.3	76	36.8	83	26.5	53	30.2
clinic	6	hospital	74	37.8	79	26.6	77	35.1	80	36.3	57	50.9
clip	F	cut	74	32.4	79	29.1	77	31.2	80	41.3	57	56.1
clipper	6	ship	70	38.6	95	23.2	72	18.1	77	28.6	61	26.2
clipping	6	piece cut out	78	24.4	82	28.0	82	32.9	85	56.5	61	41.0
clippers	6	shears	64	14.1	72	20.8	80	37.5	76	52.6	50	66.0
cloak	F	coat	80	31.3	75	28.0	76	13.2	66	13.6	62	16.1
clock	F	watch	64	62.5	72	75.0*	80	85.0*	76	86.8*	50	90.0*
clockwise	6	direction	52	17.3	75	37.3	85	40.0	64	53.1	52	65.4
clod	6	lump of earth	66	21.2	73	27.4	69	27.5	70	31.4	66	34.8

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
close	F	shut	60	18.3	79	27.8	82	42.7	66	57.6	72	59.7
closeness	6	nearness	79	7.6	76	14.5	91	28.6	64	45.3	69	43.5
closet	F	room for clothes	65	30.8	61	50.8	90	57.8	67	74.6*	73	74.0*
cloth	F	rag	80	42.5	75	30.7	76	48.7	66	71.2*	62	85.5*
clothe	6	dress	65	43.1	61	63.9	90	76.7*	67	88.1*	73	98.6*
clothes	F	coverings for the body	69	20.3	93	45.2	70	62.9	80	78.8*	70	85.7*
cloud	F	smoke in the air	68	35.3	74	55.4	76	72.4*	70	84.3*	69	88.4*
cloudburst	6	sudden rainfall	50	32.0	93	31.2	63	47.6	76	63.2	69	79.7*
cloudless	6	clear	67	35.8	70	35.7	73	58.9	72	68.1*	73	67.1*
cloudy	F	covered with clouds	66	25.8	73	30.1	69	39.1	70	68.6*	66	74.2*
clove	6	spice	78	12.8	82	19.5	82	28.0	85	43.5	61	49.2
clover	F	plant	52	23.1	75	33.3	85	34.1	64	28.1	52	48.1
clown	F	man who makes people laugh	61	37.7	81	61.7	77	74.0*	61	86.9*	70	94.3*
club	F	stick	64	23.4	76	22.4	70	27.1	78	20.5	60	23.3
club	6	group	66	25.8	98	37.8	66	48.5	60	73.3*	84	76.2*
clubhouse	4	hall	70	37.1	80	38.8	58	46.6	74	41.9	67	65.7
clue	6	guide	61	24.6	81	25.9	85	35.3	74	50.0	59	44.1
clump	F	group	61	21.3	74	41.9	85	34.1	64	28.1	78	34.6
clump	6	step heavily	61	26.2	74	20.3	85	40.0	64	45.3	78	53.8
clumsy	6	awkward	63	31.7	82	25.6	71	31.0	82	31.7	67	53.7
cluster	6	bunch	61	26.2	74	24.3	85	28.2	64	21.9	78	41.0
clutch	6	grasp	54	33.3	86	34.9	73	43.8	77	42.9	63	57.1
coach	F	carriage	64	20.3	72	33.3	75	40.0	81	44.4	65	38.5
coach	6	railway car	64	40.6	76	42.1	70	35.7	78	34.6	60	43.3
coachman	6	driver	49	22.4	69	30.4	65	47.7	79	60.8	49	73.5*
coal	F	fuel	52	25.0	75	33.3	85	41.2	64	56.3	52	75.0*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
coarse	6	not fine	58	34.5	86	32.6	76	30.3	78	33.3	58	37.9
coast	F	land along the ocean	61	21.3	74	27.0	85	47.1	64	54.7	78	74.4*
coastal	6	shore	70	27.1	95	28.4	72	37.5	77	58.4	61	65.6
coat	F	jacket	66	47.1	74	62.2	76	82.9*	70	68.6*	69	91.3*
coating	6	layer	50	16.0	93	15.1	63	30.2	76	32.9	69	27.5
coax	6	persuade	60	10.0	79	20.3	82	40.2	66	50.0	72	40.3
cob	F	ear of corn	45	40.0	66	36.8	79	46.8	57	40.4	51	43.1
cobbler	F	shoemaker	65	18.5	61	39.3	90	38.9	67	41.8	73	27.4
cobblestone	6	rounded stone	52	34.6	75	24.0	65	31.8	64	40.6	52	61.5
cobra	6	snake	66	24.2	93	20.4	66	18.2	60	38.3	84	53.6
cobweb	4	spiders web	70	30.0	80	36.8	58	43.1	74	54.1	67	55.2
cock	6	bird	65	36.5	61	32.8	90	24.4	67	31.3	73	31.5
cockpit	6	place where the pilot sits	78	24.4	62	26.8	82	26.8	85	55.3	61	29.5
cockroach	6	insect	63	19.0	82	14.6	71	33.8	82	37.8	67	53.7
cocky	6	conceited	73	37.0	71	32.4	73	32.9	72	40.3	67	35.8
cocoa	F	a drink	75	46.7	88	55.7	77	71.4*	74	82.4*	72	87.5*
coconut	F	fruit	70	25.7	63	38.1	76	65.8	70	61.4	58	84.5*
code	6	system of signals	60	16.7	67	19.4	79	43.0	81	42.0	62	61.3
codfish	F	fish	64	40.6	76	44.7	70	48.6	76	55.1	60	60.0
coffee	F	a drink	49	44.9	69	62.3	65	83.1*	79	69.9*	49	93.9*
coffin	6	box	65	29.2	91	33.0	69	20.3	68	38.2	64	42.2
coin	F	money	60	35.0	79	49.4	82	67.1*	66	78.8*	72	87.5*
coil	6	wind	74	20.3	79	13.9	77	20.8	80	18.8	57	33.3
coke	6	fuel	66	34.8	73	32.9	69	40.6	70	44.3	66	56.1
cold	F	chilly	61	36.1	81	43.2	85	69.4*	74	77.0*	59	72.9*
coleslaw	6	salad	70	25.7	86	27.3	62	25.8	79	36.0	66	39.4

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%	N	%
collapse	6	fall in	80	20.0	75	12.0	76	14.5	66	31.8	62	35.5		
collar	F	band around the neck	76	27.6	91	36.3	75	50.7	85	65.9	57	75.4*		
collect	4	gather	67	20.9	70	28.6	73	35.6	72	56.9	73	60.3		
collection	6	bringing together	60	21.7	79	27.8	82	47.6	66	57.6	72	66.7*		
collector	4	person hired to collect money	70	40.0	63	49.2	76	48.7	70	50.0	58	62.1		
college	F	school	60	28.3	79	53.2	82	69.5*	66	80.3*	72	84.7*		
collie	4	dog	60	30.0	79	39.2	82	45.1	66	68.2*	72	70.8*		
collision	6	crash	65	29.2	61	34.4	90	32.2	67	35.8	73	23.3		
colonel	6	officer	69	24.6	76	17.1	64	29.7	77	33.8	52	51.9		
colonial	6	having to do with the colonies	63	34.9	82	35.4	71	45.1	82	40.2	67	53.7		
colonist	6	person who helped to found a colony	45	42.2	68	30.9	79	43.0	57	42.1	51	35.3		
colony	6	settlement	70	24.3	95	27.4	72	43.1	77	59.7	61	68.9*		
color	F	paint	76	44.7	91	70.3*	75	85.3*	85	83.5*	57	91.2*		
colored	F	not black or white	64	53.1	76	52.6	70	75.7*	72	80.8*	60	71.7*		
colorful	4	bright	73	30.1	71	47.9	73	54.3	72	79.2*	67	76.1*		
colorless	4	dull	76	14.5	87	16.1	73	24.7	78	39.7	63	47.6		
colt	F	young horse	60	36.7	57	47.4	66	59.1	64	70.3*	53	86.8*		
column	F	tower	80	23.8	75	29.3	76	26.3	66	22.7	62	25.8		
column	6	division on a page	64	21.9	76	28.9	70	37.1	78	41.0	60	65.0		
columnist	6	news writer	57	15.8	64	18.8	63	27.0	76	40.8	53	52.8		
comb	F	rubber with teeth used to arrange the hair	60	41.7	70	65.7	79	81.0*	82	82.9*	38	76.3*		
combat	6	fight	59	28.8	70	40.0	76	69.7*	64	78.1*	56	82.1*		
comeback	6	return	64	32.8	76	36.8	70	51.4	78	64.1	60	73.3*		
combination	6	union	70	17.1	88	25.0	62	37.1	79	41.8	66	45.5		
combine	4	join	76	26.3	91	23.1	75	29.3	85	30.6	57	47.4		
combine	6	machine for harvesting grain	60	26.7	79	35.4	82	35.4	66	40.9	72	38.9		

WORD	DALE GROUP	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
como	F	move toward	75	29.3	84	32.1	87	56.3	69	76.8*	76	75.0*
comedian	4	person who amuses	69	11.6	76	18.4	64	37.5	77	46.8	52	50.0
comedy	6	amusing show	48	22.9	70	32.9	59	35.6	66	47.0	57	57.9
comfort	F	help in trouble	44	25.0	76	17.1	88	22.7	59	26.8	55	32.7
comfortable	4	satisfied	68	32.4	74	41.9	76	59.2	70	70.0*	69	72.5*
comforter	6	quilt	50	22.0	68	23.5	61	24.6	60	28.3	54	38.9
comforter	6	friend	64	21.9	76	18.4	70	25.7	78	19.2	60	40.0
comic	F	funny	57	22.8	64	35.9	63	36.5	76	60.5	53	58.5
comical	6	funny	50	14.0	68	30.9	61	13.1	60	38.3	54	55.6
comling	F	next	68	23.5	80	36.3	65	38.5	65	55.4	71	57.7
comma	4	mark	50	32.0	93	38.7	63	61.9	76	72.4*	69	60.9
command	4	give an order	61	26.2	81	19.8	77	18.2	61	31.1	70	51.4
commander	4	officer	78	29.5	73	23.3	81	37.0	81	35.8	71	53.5
commandment	6	law	70	24.3	63	28.6	76	51.3	70	61.4	58	65.5
commence	6	begin	69	15.9	93	17.2	70	18.6	80	38.8	70	41.4
comment	6	make remarks	70	22.9	80	25.0	58	17.2	74	35.1	67	41.8
commerce	6	trade	79	17.7	75	17.3	76	18.4	83	25.3	53	28.3
commercial	6	having to do with business	44	29.5	76	28.9	88	39.0	59	39.0	55	58.2
commercial	6	notice	65	21.5	91	28.6	69	39.1	68	47.1	64	56.3
commission	6	put into service	56	30.4	61	23.0	60	38.3	74	44.6	49	67.3*
commissioner	6	official	54	24.1	66	29.1	73	54.3	77	62.3	63	76.2*
committee	6	group	50	12.0	68	22.1	61	31.1	60	30.0	54	53.7
common	6	belonging to all	70	18.6	80	22.5	58	20.7	74	29.7	67	43.3
commotion	6	confusion	70	42.9	80	52.5	58	48.3	74	51.4	67	43.3
communicate	6	give information	78	32.1	73	39.7	81	45.7	81	51.9	71	56.3
communication	6	giving information	80	33.8	75	45.3	76	52.6	66	57.6	62	56.5

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
communism	6	social organization	71	33.8	87	42.5	72	47.2	80	56.3	56	71.4*		
community	4	group of people	61	44.3	74	52.7	85	60.0	64	65.6	78	79.5*		
compact	6	packed	70	37.1	63	23.8	76	31.6	70	27.1	58	31.0		
companion	6	friend	78	25.6	73	24.7	81	25.9	81	29.6	71	35.2		
companionship	6	friendship	71	32.4	98	38.8	79	48.1	65	50.8	64	64.1		
company	F	group of people	80	31.3	85	37.6	84	53.6	79	59.5	60	88.3*		
compare	F	find out how things are the same or different	70	44.3	63	28.6	76	31.6	70	38.6	58	58.6		
compare	6	say something is like something else	80	23.8	85	27.1	84	35.7	79	50.6	60	51.7		
comparison	6	finding out the likenesses and differences	65	24.6	71	31.0	75	38.7	66	43.9	60	48.3		
compass	6	instrument for showing directions	70	25.7	95	24.2	72	44.4	77	61.0	61	73.8*		
complain	6	talk about pains	70	21.4	95	23.2	72	37.5	77	53.2	61	72.1*		
complaint	6	finding fault	59	30.5	56	25.0	49	30.6	67	32.8	55	41.8		
complete	4	whole	61	23.0	81	14.8	77	37.7	61	41.0	70	70.0*		
completion	6	finishing	65	23.1	77	32.5	76	31.6	75	52.0	68	44.1		
complexion	6	appearance of skin	65	13.8	77	36.4	76	40.6	75	41.3	68	47.1		
complicate	6	make hard to understand	65	33.8	77	35.1	76	35.5	75	49.3	68	50.0		
complication	6	difficulty	65	29.2	77	23.4	76	32.9	75	46.7	68	36.8		
compliment	6	praise	65	13.8	89	18.0	69	15.9	71	15.5	66	19.7		
compose	6	make up	66	31.8	73	32.9	69	20.3	70	40.0	66	36.4		
composer	6	writer of music	84	21.4	80	26.3	66	31.6	89	36.0	62	37.1		
composition	6	make-up	64	18.6	72	16.7	75	20.0	81	32.1	65	41.5		
compound	4	having more than one part	60	18.3	79	35.4	82	36.6	66	42.4	72	52.8		
compress	6	squeeze	44	27.3	76	31.6	88	33.0	59	32.2	55	36.4		
comrade	6	friend	61	24.6	74	20.3	85	14.1	64	21.9	78	28.2		
conceal	6	hide	58	17.2	86	11.6	76	11.8	78	14.1	58	20.7		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
concelted	6	self important	52	19.2	75	14.7	85	27.1	64	26.6	52	38.5		
concentrate	6	pay close attention	70	34.3	69	37.7	87	40.2	67	43.3	57	38.6		
concentration	6	close attention	45	37.8	67	44.8	79	44.3	63	41.3	53	45.3		
concern	6	interest	45	31.1	68	26.5	79	27.8	57	61.4	51	51.0		
concerning	6	about	69	20.3	93	17.2	70	27.1	80	23.8	70	22.9		
concert	4	performance	76	25.0	87	26.4	73	39.7	78	55.1	63	60.3		
conclude	6	decide	56	28.6	77	31.2	79	36.7	76	32.9	47	44.7		
conclude	6	end	60	21.7	57	24.6	66	21.2	64	29.7	53	13.2		
conclusion	6	decision	45	28.9	67	46.3	79	40.5	63	46.0	53	50.9		
concrete	4	mixture that hardens	69	27.5	76	26.3	64	37.5	77	51.9	52	48.1		
condemn	6	declare not suitable	71	25.4	98	24.5	79	36.7	65	33.8	64	20.3		
condemnation	6	judgement	58	32.8	86	37.2	76	47.4	78	48.7	58	65.5		
condition	6	state	64	23.4	76	23.7	70	12.9	78	21.8	60	18.3		
conduct	6	lead	41	12.2	57	21.1	70	31.4	71	39.4	51	51.0		
conduct	6	way of acting	52	13.5	75	20.0	65	22.4	64	35.9	52	44.2		
conductor		leader	65	12.3	89	34.8	69	30.4	71	43.7	66	39.4		
conductor	6	thing that transmits	52	13.5	75	26.7	85	37.6	64	35.9	52	36.5		
conference	6	meeting	66	23.5	80	30.0	65	46.2	65	50.8	71	52.1		
confess	6	admit	77	32.5	94	23.4	62	29.0	77	48.1	68	50.0		
confession	6	telling one's sins	64	20.3	72	29.2	75	34.7	81	49.4	65	50.8		
confide	6	tell as a secret	64	21.9	72	33.9	75	28.0	81	39.5	65	29.2		
confidence	6	thing told as a secret	70	17.1	95	25.3	72	23.6	77	31.2	61	50.8		
confident	6	sure	61	8.2	81	9.9	85	8.2	74	24.3	59	22.0		
confidential	6	secret	70	22.9	95	34.7	72	40.3	77	48.1	61	54.1		
confuse	6	mix up	64	34.4	72	41.7	80	36.3	76	38.2	50	54.0		
confusion	6	disorder	65	21.5	77	22.1	76	28.9	75	42.7	68	42.6		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
congratulate	6	express pleasure	70	24.3	88	30.7	62	35.5	79	48.1	66	42.4		
congregate	6	come together	70	28.6	95	28.4	72	25.0	77	32.5	61	32.8		
congregation	6	gathering of people	67	52.2	70	30.0	73	39.7	72	54.2	73	49.3		
congress	6	national law making body	48	29.2	70	40.0	59	44.1	66	65.2	57	80.7*		
connect	F	join	64	17.2	76	23.7	70	41.4	78	34.6	60	61.7		
connection	6	tie	51	15.7	63	11.1	66	9.1	53	22.6	53	39.6		
connective	6	joining	41	24.4	57	24.6	70	35.7	71	32.4	51	31.4		
conquer	6	win in war	50	34.0	68	29.4	61	18.0	60	25.0	54	35.2		
conqueror	6	winner	78	19.2	73	19.2	81	23.5	81	30.9	71	45.1		
conscience	6	sense of right and wrong	68	22.1	80	28.8	65	32.3	65	33.8	71	36.6		
consent	6	agree	71	16.9	87	21.8	72	27.8	80	32.5	56	42.9		
consider	6	think about	76	27.6	87	21.8	73	13.7	78	33.3	63	36.5		
considerate	6	thoughtful	61	31.1	74	47.3	85	32.9	64	32.8	78	56.4		
consideration	6	thought	68	14.7	74	17.6	76	17.1	70	18.6	69	24.6		
consist	6	be made of	61	26.2	74	24.3	85	30.6	64	28.1	78	33.3		
constable	6	policeman	79	26.6	76	27.6	91	30.8	64	25.0	69	30.4		
constant	6	always the same	60	16.7	83	22.9	75	24.0	79	25.3	60	21.7		
constitution	6	laws	78	14.1	73	27.4	81	42.0	81	46.9	71	64.8		
constitutional	6	lawful	71	11.3	87	19.5	72	30.6	80	42.5	56	62.5		
construct	6	build	64	10.9	76	13.2	70	10.0	78	25.6	60	36.7		
construction	6	building	50	38.0	68	29.4	61	14.8	60	26.7	54	40.7		
consult	6	seek advice	64	21.9	72	25.0	80	22.5	76	25.0	50	24.0		
contact	6	make a connection	58	36.2	86	39.5	76	46.1	78	47.4	58	67.2*		
contain	4	hold	65	33.8	91	23.1	69	20.3	68	36.8	64	35.9		
container	4	holder	63	33.3	82	40.2	71	46.5	82	51.2	67	50.7		
content	6	satisfy	68	25.0	74	29.7	76	31.6	70	38.6	69	39.1		
contented	6	satisfied	60	25.0	83	26.5	75	34.7	79	55.7	60	40.0		

-54

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
contentment	6	satisfaction	70	35.7	63	38.1	76	52.6	70	60.0	58	63.8		
contents	6	things inside	68	8.8	80	27.5	69	33.3	70	34.3	59	37.3		
contest	6	battle	80	30.0	75	17.3	76	23.7	66	27.3	62	17.7		
continent	6	mainland	60	16.7	57	35.1	66	39.4	64	45.3	53	62.3		
continental	6	of a continent	60	18.3	57	26.3	66	30.3	64	45.3	53	58.5		
continual	6	never stopping	71	23.9	87	24.1	72	30.6	80	30.0	56	55.4		
continuaction	6	going on	64	14.1	72	26.4	75	26.7	81	32.1	65	41.5		
continue	4	keep on	70	18.6	63	17.5	76	25.0	70	28.6	58	55.2		
contract	6	become smaller	58	19.0	86	33.7	76	28.9	78	32.1	58	37.9		
contractor	6	builder	68	14.7	80	15.0	64	23.4	68	36.8	71	40.8		
contribute	6	give money	60	31.7	79	20.3	82	20.7	66	18.2	72	19.4		
contribution	6	gift	78	19.2	73	17.8	81	14.3	81	9.9	71	18.3		
contributor	6	giver	61	21.3	81	16.5	85	17.6	74	20.3	59	33.9		
control	6	hold back	59	18.6	86	22.1	61	34.4	88	31.8	63	46.0		
convenient	6	handy	70	18.6	69	13.0	87	13.6	67	16.4	57	12.3		
convention	6	meeting	45	28.9	67	22.4	79	34.2	63	39.7	53	54.7		
convention	6	custom	66	19.7	96	28.6	66	25.3	60	25.0	84	32.1		
conversation	6	talk	45	20.0	68	22.1	79	26.6	57	36.8	51	51.0		
convertible	6	automobile	69	24.6	93	36.6	70	41.4	80	27.5	70	37.1		
convict	6	criminal	60	31.7	67	34.3	79	43.0	81	39.5	62	51.6		
conviction	6	proving guilty	66	34.8	73	30.1	69	33.3	70	51.4	66	43.9		
convince	4	cause to believe	75	40.0	88	26.1	77	22.1	74	27.0	72	45.8		
cook	F	prepare food	60	45.0	83	69.9*	75	86.7*	79	96.2*	60	86.7*		
cookie	F	flat cake	59	52.5	70	61.4	76	90.8*	64	89.1*	56	96.4*		
cool	F	more cold than hot	59	47.5	70	44.3	76	43.4	64	34.4	56	53.6		
cooler	6	refrigerator	59	20.3	70	42.9	76	52.6	64	60.9	56	64.3		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
coolness	6	reserve	56	23.2	61	26.2	60	40.0	74	40.5	49	34.7		
coop	F	cage	70	37.1	80	38.8	58	27.6	74	45.9	67	46.3		
cooperate	6	work together	59	35.6	56	26.8	49	32.7	67	29.9	55	49.1		
cooperation	6	working together	59	44.1	70	37.1	76	53.9	64	51.6	56	69.6*		
cop	4	policeman	59	37.3	70	28.6	76	39.5	64	53.1	56	60.7		
copper	F	metal	59	22.0	70	25.7	76	48.7	64	75.0*	56	69.6*		
copy	F	double	56	25.0	77	26.0	79	40.5	76	47.4	47	46.8		
coral	6	hard pink substance	66	33.3	98	31.6	66	27.3	60	43.3	84	35.7		
cord	F	string	52	13.5	75	24.0	85	28.2	64	40.6	52	50.0		
core	6	center part	74	21.6	79	39.2	77	20.8	80	41.3	57	45.6		
cork	F	bark	58	34.5	86	29.1	76	39.5	78	28.2	58	41.4		
corkscrew	4	tool	58	13.8	86	26.7	76	34.2	78	46.2	58	58.6		
corn	F	grain	59	30.5	56	44.6	49	59.2	67	70.1*	55	76.4*		
corner	F	place where two lines meet	79	24.1	76	28.9	91	45.1	64	60.9	69	71.0*		
cornet	6	musical instrument	67	28.4	83	33.7	76	30.3	84	32.1	58	48.3		
cornfield	4	patch	59	20.3	56	32.1	49	34.7	67	37.3	55	41.8		
cornstalk	4	stem	65	16.9	77	28.6	76	40.8	75	49.3	68	36.8		
cornstarch	6	flour	71	26.8	87	27.6	72	30.6	80	43.8	56	69.6*		
coronation	6	ceremony	60	41.7	83	44.6	75	44.0	79	40.5	60	26.7		
corporal	6	officer	64	37.5	76	43.4	70	41.4	78	48.7	60	46.7		
corporation	6	company	65	38.5	61	36.1	90	35.6	67	40.3	73	43.8		
corps	6	division of an army	80	28.8	75	20.0	76	32.9	66	39.4	62	41.9		
corpuscle	6	cell	71	22.5	98	26.5	79	20.3	65	26.2	64	29.7		
corpse	6	dead body	61	24.6	81	28.4	77	29.9	61	23.0	70	28.6		
corral	6	pen	71	35.2	87	23.0	72	12.5	80	16.3	56	21.4		
correct	F	make right	45	11.1	68	30.9	79	41.8	57	78.9*	51	84.3*		
correction	6	setting right	75	18.7	84	33.3	87	32.2	69	44.9	76	60.5		

-56-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
corridor	6	hallway	70	21.4	63	19.0	76	22.4	70	24.3	58	27.6
cosmetic	6	make-up	70	24.3	63	28.6	76	34.2	70	21.4	58	44.8
cost	7	price paid	65	21.5	71	32.4	75	62.7	66	75.8*	60	75.0*
costly	7	of great value	75	18.7	84	25.0	87	40.2	69	52.2	76	57.9
costume	6	dress	60	46.7	70	54.3	79	58.2	82	68.3*	38	55.3
cot	7	bed	61	36.1	81	30.9	85	27.1	74	37.8	59	33.9
cottage	7	house	61	36.1	81	34.6	85	41.2	74	52.7	59	47.5
cottonwood	6	tree	59	28.8	86	44.2	61	59.0	86	73.9*	63	87.3*
couch	7	sofa	64	20.3	76	15.8	70	25.7	78	44.9	60	41.7
council	6	persons elected to make laws	70	30.0	95	17.9	72	34.7	77	48.1	61	62.3
councilor	6	public official	36	28.6	61	27.9	60	31.7	74	39.2	49	61.2
count	7	name numbers in order	74	35.1	79	38.0	77	49.4	80	65.0	57	73.7*
countor	7	long table	70	15.7	95	24.2	72	20.8	77	16.9	61	39.3
countersfelt	6	fake	79	29.1	75	24.0	76	21.1	83	14.5	53	24.5
countess	6	wife of a count	74	27.0	79	21.5	77	27.3	80	20.0	57	26.3
country	7	land	70	27.1	80	46.3	58	43.1	74	73.0*	67	82.1*
countryside	6	open country	75	21.3	84	21.4	87	28.7	69	37.7	76	34.5
coupe	6	two-door automobile	44	31.8	76	15.8	88	37.5	59	35.6	55	34.5
couple	4	pair	58	15.5	70	22.9	58	25.9	57	40.4	56	53.6
coupling	6	joining together	78	20.5	73	37.0	81	37.0	81	39.5	71	54.9
coupon	4	part of a ticket	78	23.1	73	23.3	81	38.3	81	33.3	71	45.1
courage	4	bravery	75	32.0	88	28.4	77	39.0	74	39.2	72	58.3
courageous	6	brave	68	11.8	80	20.0	65	46.2	65	46.2	71	59.2
course	7	road	65	23.1	71	21.1	75	14.7	66	13.6	60	10.0
course	6	place for games	71	25.4	87	27.6	72	22.2	80	18.0	56	25.0

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
court	F	royal palace	50	22.0	68	19.1	61	42.6	60	50.0	54	55.6		
court	6	seek to marry	71	23.9	98	22.4	79	26.6	65	29.2	64	39.1		
courteous	6	polite	58	25.9	70	22.9	58	29.3	57	35.1	56	55.4		
courtesy	6	kindness	61	24.6	81	35.8	77	23.4	61	41.0	70	48.6		
courthouse	6	building	64	34.4	76	48.7	70	57.1	78	64.1	60	83.3*		
courtyard	6	space enclosed by walls	84	23.8	80	31.3	66	27.3	89	30.3	62	30.6		
cousin	F	son or daughter of an uncle or aunt	70	42.9	95	37.9	72	69.4*	77	72.7*	61	90.2*		
cover	F	case	76	28.9	91	34.1	75	42.7	85	45.9	57	43.9		
coverlet	6	bedspread	48	33.3	70	32.9	59	33.9	66	45.5	57	47.4		
cow	F	animal	60	45.0	79	67.1*	82	87.8*	66	93.9*	72	94.4*		
coward	F	person who is afraid	75	20.0	84	40.5	87	33.3	69	53.6	76	53.9		
cowardly	F	afraid	70	44.3	88	35.2	62	38.7	79	46.8	66	56.1		
cowboy	F	man who looks after cattle	68	33.8	74	48.6	76	60.5	70	70.0*	69	63.8		
cowhide	4	leather	65	24.6	77	37.7	76	46.1	75	62.7	68	45.6		
cowslip	6	plant	67	14.9	83	12.0	76	19.7	84	26.2	58	29.3		
coyote	6	wolf	80	21.3	85	35.3	84	44.0	79	44.3	60	56.7		
cozy	6	snug	79	26.6	76	28.9	91	33.0	64	25.0	69	43.5*		
crab	F	animal	69	33.3	76	36.8	64	37.8	77	66.2	52	76.3*		
crack	F	opening	58	15.5	70	40.0	58	41.4	57	42.1	56	57.1		
cracker	F	food	70	51.4	80	66.3	58	63.8	74	67.6*	67	79.1*		
cradle	F	baby's bed	70	48.6	95	40.0	72	52.8	77	61.0	61	68.9*		
craft	6	art	54	29.6	86	30.2	73	42.5	77	53.2	63	71.4*		
craft		boat	57	28.1	64	23.4	63	22.2	76	27.6	53	20.8		
craftsman	6	skilled workman	58	29.3	86	37.2	76	53.9	78	57.7	58	72.4*		
cram	6	stuff	80	31.3	75	29.3	76	50.0	66	60.6	62	64.5		
cramp	F	shut into a small space	59	22.0	70	27.1	76	30.3	64	28.1	56	28.6		
cranberry	F	berry	78	24.4	79	32.9	69	50.7	66	68.2*	68	66.2		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
crane	6	machine for lifting	73	16.4	71	19.7	73	38.4	72	25.0	67	35.8		
crane	6	bird	76	23.7	91	19.8	75	16.0	85	23.5	57	28.1		
crank	F	handle	75	18.7	84	22.6	87	27.6	69	30.4	76	35.5		
cranky	F	cross	59	35.6	56	35.7	49	36.7	67	40.3	55	43.6		
crate	6	box	56	33.9	61	24.6	60	28.3	74	33.8	49	36.7		
crater	6	opening of a volcano	64	31.3	76	19.7	70	34.3	78	34.6	60	48.3		
crawl	F	move slowly	70	35.7	69	40.6	87	51.7	67	68.7*	57	64.9		
crayfish	6	animal	68	26.5	80	50.0	65	70.8*	65	83.1*	71	90.1*		
crayon	4	stick for drawing	64	37.5	76	42.1	70	72.9*	78	73.1*	60	81.7*		
crazy	F	foolish	69	31.9	93	47.3	70	54.3	80	77.5*	70	84.3*		
creak	6	squeek	69	15.9	91	28.6	83	48.2	69	46.4	61	54.1		
cream	F	part of milk	69	46.4	76	72.4*	64	71.9*	77	93.5*	52	90.4*		
creamy	F	like cream	49	30.6	62	48.4	57	54.4	67	67.2*	57	78.9*		
crease	6	fold	61	19.7	81	24.7	85	14.1	74	36.5	59	25.4		
create	6	make a thing	59	30.5	56	23.2	49	36.7	67	19.4	55	36.4		
creation	6	original work	41	26.8	57	31.6	70	38.6	71	32.4	51	39.2		
creator	6	maker	51	19.6	63	15.9	66	27.3	53	35.8	53	43.4		
creature	6	living person	45	6.7	67	25.4	79	35.4	63	46.0	53	60.4		
credit	6	trust in future payment	78	23.1	79	32.9	69	39.1	66	59.1	68	73.5*		
creek	F	stream	68	27.9	80	37.5	69	50.7	70	48.6	59	57.6		
creep	F	crawl	69	37.7	91	18.7	83	39.8	69	49.3	61	55.7		
crew	6	men on a ship	60	33.3	79	16.5	82	28.0	66	37.9	72	33.3		
crib	4	bed	66	12.1	98	28.6	66	40.9	60	40.0	84	52.4		
cricquet	4	insect	74	31.1	79	24.1	77	39.0	80	53.8	57	61.4		
crime	4	wrong deed	71	22.5	87	19.5	72	37.5	80	41.3	56	46.4		
criminal	4	chief	70	17.1	95	20.0	72	34.7	77	49.4	61	50.8		
cripple	4	lame person	78	14.1	79	26.6	69	34.8	66	40.9	68	55.9		

-59-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
crisp	6	breaking easily	63	20.6	82	32.9	71	38.0	82	50.0	67	52.2		
crisscross	6	crossed lines	49	34.7	69	56.5	65	52.3	79	40.5	49	51.0		
criticism	6	finding fault	59	32.2	86	24.4	61	49.2	88	45.5	63	54.0		
criticize	6	find fault with	64	25.0	76	25.0	70	30.0	78	28.2	60	58.3		
crock	6	pot	78	26.9	73	20.5	81	22.2	81	13.6	71	26.8		
crocodile	4	animal	78	30.8	79	26.6	69	40.6	66	39.4	68	57.4		
crocus	6	plant	65	27.7	61	27.9	90	36.7	67	38.8	73	47.9		
crook	F	robber	75	26.7	84	33.3	87	32.2	69	33.3	76	26.3		
crooked	F	bent	79	20.3	75	14.7	76	34.2	83	33.7	53	49.1		
crop	F	plants	69	29.0	91	23.1	83	47.0	69	58.0	61	67.2*		
crop	6	cut	79	21.5	76	22.4	91	33.0	64	42.2	69	43.5		
crossing	F	place where lines cross	57	45.6	64	50.0	63	52.4	76	59.2	53	50.9		
crosspiece	6	wood placed across something	45	17.8	68	33.8	79	30.4	57	36.8	51	41.2		
crossroads	6	intersection	58	27.6	70	38.6	58	32.8	57	33.3	56	75.0*		
crosswise	6	across	50	14.0	68	19.1	61	24.6	60	28.3	54	20.4		
crossword	6	puzzle	41	43.9	57	49.1	70	52.9	71	71.8*	51	72.5*		
crouch	6	stoop	78	28.2	79	21.5	69	36.2	66	34.8	68	32.4		
crow	F	bird	76	43.4	87	59.8	73	68.5*	78	84.6*	63	87.3*		
crow	6	boast	70	28.6	63	42.9	76	53.9	70	52.9	58	72.4*		
crowbar	4	bar of iron	50	26.0	68	27.9	61	24.6	60	21.7	54	42.6		
crowd	F	large number of people	79	27.8	75	32.0	76	46.1	83	53.0	53	66.0		
crowded	F	packed	70	24.3	63	19.0	76	26.3	70	32.9	58	43.1		
crown	F	head covering	79	19.0	76	35.5	91	52.7	64	56.3	69	72.5*		
crown	6	part of a tooth	71	16.9	87	25.3	72	11.1	80	18.8	56	21.4		
crucifix	6	cross	78	30.8	79	19.0	69	24.6	66	19.7	68	25.0		
crucifixion	6	torture	78	14.1	79	13.9	69	10.1	66	22.7	68	17.6		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
crucify	6	put to death	54	25.9	86	26.7	73	28.8	77	44.2	63	49.2		
cruel	F	savage	65	20.0	61	29.5	90	44.4	67	41.8	73	42.5		
cruelty	6	readiness to give pain	66	15.2	73	19.2	66	34.8	86	40.7	71	53.5		
cruise	6	sail	58	27.6	86	25.6	76	26.3	78	29.5	58	29.3		
cruiser	6	warship	79	13.9	76	15.8	91	18.7	64	28.1	69	27.5		
crumb	F	small piece	79	24.1	76	30.3	91	28.6	64	34.8	69	37.7		
crumble	F	break	67	23.9	70	24.3	73	28.8	72	55.6	73	52.1		
crumple	6	crush	79	39.2	75	40.0	76	52.6	83	56.6	53	56.6		
crush	F	squeeze	61	32.8	74	40.5	85	47.1	64	62.5	78	59.0		
crust	F	hard outside part	79	20.3	76	22.4	91	30.8	64	50.0	69	60.9		
crutch	4	stick	79	27.8	76	25.0	91	24.2	64	17.2	69	36.2		
cry	F	weep	45	31.1	67	28.4	79	35.4	63	60.3	53	73.6*		
crystal	6	glass	59	23.7	70	28.6	76	25.0	64	48.4	56	53.6		
cub	F	young animal	79	32.9	76	35.5	91	42.9	64	65.6	69	73.9*		
cube	6	a solid	65	20.0	71	26.8	75	30.7	66	39.4	60	43.3		
cubic	6	shaped like a cube	61	26.2	81	19.8	85	31.8	74	43.2	59	55.9		
cucumber	6	vegetable	60	21.7	67	28.4	79	31.6	81	53.1	62	56.5		
cuckoo	6	bird	68	26.5	80	32.5	65	50.8	65	63.1	71	71.8*		
cuddle	6	hold close	75	29.3	84	28.6	87	37.9	69	37.7	76	42.1		
cuff	F	band	70	14.3	63	14.3	76	19.7	70	27.1	58	39.7		
cultivate	6	work the soil	64	25.0	72	20.8	75]	12.0	81	33.3	65	33.8		
cunning	6	sly	66	18.2	73	20.5	66	30.3	86	34.9	71	35.2		
cup	F	dish	69	46.4	93	51.6	70	71.4*	80	81.3*	70	87.1*		
cupboard	F	closet	50	38.0	68	38.2	61	47.5	60	51.7	54	61.1		
cupful	F	as much as a cup can hold	49	24.5	62	22.6	57	38.6	67	53.7	57	64.9		
curb	6	hold in	70	22.9	69	21.7	87	28.7	67	32.8	57	43.9		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
curb	6	edge of sidewalk	67	26.9	83	26.5	76	34.2	84	44.0	58	58.6		
curd	6	part of milk	75	32.0	84	26.2	87	21.8	69	13.0	76	10.5		
curdle	6	chicken	60	26.7	67	28.4	79	36.7	81	28.4	62	21.0		
cure	F	make well	66	19.7	73	30.1	66	21.2	86	31.4	71	49.3		
curiosity	6	strange object	61	24.6	81	24.7	85	28.2	74	47.3	59	39.0		
curious	6	eager to know	67	29.9	83	24.1	76	35.5	84	40.5	58	50.0		
curl	F	roll	78	29.5	79	48.1	69	68.1*	66	77.3*	68	77.9*		
curly	F	wavy	71	16.9	98	28.6	79	39.2	65	46.2	64	59.4		
current	6	of the present time	60	20.0	79	29.1	82	13.4	66	28.8	72	23.6		
curse	6	swear	70	17.1	63	22.2	76	26.3	70	20.0	58	31.0		
curtain	F	cloth hung at windows	80	22.5	75	37.3	76	40.8	66	43.9	62	45.2		
curve	F	bend	78	17.9	79	26.6	69	46.4	66	57.6	68	66.2		
cushion	F	pillow	78	26.9	79	32.9	69	46.4	66	48.5	68	45.6		
custom	6	habit	78	21.8	79	17.7	69	33.3	66	33.3	68	32.4		
customer	F	person who buys	79	22.8	76	25.0	91	42.9	64	53.1	69	76.8*		
cut	F	open	60	35.0	67	50.7	79	48.1	81	63.0	62	74.2*		
cute	F	pretty	70	41.4	95	47.4	72	75.0*	77	74.0*	61	83.6*		
cutter	6	person who cuts	70	31.4	80	41.3	58	41.4	74	56.8	67	64.2		
cutworm	6	caterpillar	56	33.9	61	39.3	60	41.7	74	66.2	49	63.3		
cycle	6	ride	54	37.0	86	29.1	73	39.7	77	46.8	63	54.0		
cyclone	6	storm	68	17.6	80	22.5	64	26.6	68	14.7	71	23.9		
cymbal	6	instrument	59	10.2	56	8.9	49	24.5	67	19.4	55	30.9		
czar	6	emperor	59	13.6	70	15.7	76	26.3	64	34.4	56	37.5		

-62-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
dab	F	pat	80	21.3	85	29.4	84	20.2	79	17.7	60	16.7
dab	6	small soft mass	65	24.6	91	28.6	69	43.5	68	29.4	64	35.9
daddy	F	father	61	55.7	81	67.9*	85	81.2*	74	90.5*	59	89.8*
daffodil	6	plant	84	26.2	80	27.5	66	28.8	89	24.7	62	35.5
dagger	6	weapon	78	24.4	79	30.4	69	31.9	66	28.8	68	36.8
daily	F	every day	61	26.2	74	45.9	85	56.5	64	62.5	78	75.6*
dainty	6	pretty	63	27.0	82	43.9	71	43.7	82	42.7	67	44.8
dairy	F	farm	65	23.1	77	32.5	76	40.8	75	61.3	68	54.4
daisy	F	flower	60	35.0	57	40.4	66	56.1	64	60.9	53	69.8*
dam	F	wall to hold back water	54	22.2	86	36.0	73	47.9	77	63.6	63	79.4*
damage	F	harm	60	35.3	71	36.0	74	55.4	67	67.2*	63	66.7*
dame	F	lady	44	34.1	76	28.9	88	19.3	59	23.7	55	27.3
damn	6	swear at	84	20.2	80	26.3	66	25.8	89	23.6	62	29.0
damp	F	wet	64	29.7	72	29.2	80	36.3	76	53.9	50	62.0
dampen	6	moisten	51	27.5	63	39.7	66	50.0	53	64.2	53	79.2*
dance	F	move in time with music	78	29.5	79	54.4	69	76.8*	66	83.3*	68	89.7*
dancer	F	person who dances	50	38.0	93	33.3	63	55.6	76	73.7*	69	63.8
dandelion	6	weed	70	14.3	88	23.9	62	32.3	79	49.4	66	43.9
dandy	F	man careful of his dress	64	15.6	72	26.4	80	25.0	76	27.6	50	40.0
danger	F	chance of harm	51	27.5	63	23.8	66	53.0	53	49.1	53	71.7*
dangerous	F	not safe	69	29.0	91	29.7	83	59.0	69	63.8	61	77.0*
dangle	6	hang	73	30.1	71	26.8	73	21.9	72	30.6	67	34.3
dare	F	be bold	80	27.5	75	22.7	76	25.0	66	28.8	62	27.4
daredevil	6	man of courage	78	16.7	73	20.5	81	29.6	81	25.9	71	26.8
darling	F	bold	68	27.9	80	27.5	64	21.9	68	32.4	71	29.6

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
darken	6	dim	64	25.0	76	25.0	70	38.6	78	39.7	60	63.3
darkness	F	shade	51	15.7	63	41.3	66	68.2*	53	73.6*	53	79.2*
dark	F	without light	60	26.7	57	47.4	66	75.8*	64	71.9*	53	86.8*
darling	F	person much loved	50	18.0	93	25.8	63	50.8	76	64.5	69	63.8
darn	F	mend	69	27.5	93	20.4	70	25.7	80	31.3	70	44.3
dart	F	move suddenly	68	16.2	80	23.8	65	40.0	65	44.6	71	53.5
dart	4	weapon	48	20.8	70	28.6	59	27.1	66	40.9	57	43.9
dash	6	mark used in writing	79	21.5	76	18.4	91	23.1	64	17.2	69	27.5
dash	F	rush	78	21.8	73	34.2	81	35.8	81	39.5	71	60.6
date	6	appointment	68	27.9	71	25.4	74	33.8	67	46.3	63	49.2
date	F	time when something happens	77	28.6	94	42.6	62	46.8	77	59.7	68	66.2
daughter	F	child	84	23.8	80	41.3	66	65.2	89	83.1*	62	82.3*
dawn	F	beginning of day	66	28.8	73	23.3	69	30.4	70	41.4	66	53.0
day	F	time between sunrise and sunset	68	29.4	74	59.5	76	78.9*	70	81.4*	69	84.1*
daybreak	F	dawn	68	33.8	74	36.5	76	51.3	70	48.6	69	46.4
daydream	6	think about pleasant things	59	30.5	86	33.7	61	52.5	88	68.2*	63	71.4*
daylight	6	light of the sun	49	28.6	62	50.0	57	71.9*	67	77.6*	57	86.0*
daze	6	confuse	41	9.8	57	21.1	70	31.4	71	46.5	51	52.9
dazzle	6	hurt the eyes with bright light	69	29.0	76	18.4	64	32.8	77	41.6	52	44.2
dead	F	without life	75	24.0	84	32.1	87	67.8*	69	76.8*	76	81.6*
deaden	6	make dull	56	28.6	61	32.8	60	38.3	74	48.6	49	69.4*
deadline	4	limit	70	18.6	80	21.3	58	29.3	74	29.7	67	55.2
deadly	6	causing death	65	27.7	89	33.7	69	47.8	71	69.0*	66	56.1
deaf	4	not able to hear	54	40.7	86	44.2	73	71.2*	77	76.6*	63	92.1*
deafen	6	deprive of hearing	54	29.6	86	36.0	73	61.6	77	74.0*	63	81.0*
deafening	6	loud	44	15.9	76	27.6	88	40.9	59	42.4	55	61.8

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
deafness	4	being deaf	84	28.6	80	42.5	66	60.6	89	78.7*	62	82.3*		
deal	F	have to do with	59	32.2	56	12.5	49	26.5	67	26.9	55	45.5		
deal	6	buy and sell	79	24.1	75	26.7	76	40.8	83	47.0	53	64.2		
dealer	6	person who buys and sells	71	23.9	98	43.9	79	44.3	65	47.7	64	59.4		
dean	6	principal	59	22.0	70	22.9	76	26.3	64	34.4	56	26.8		
dear	F	darling	60	31.7	63	41.0	75	53.3	79	68.4*	60	75.0*		
death	4	end of life	60	25.0	67	40.3	79	54.4	81	63.0	62	77.4*		
deathless	6	living forever	61	21.3	81	14.8	85	34.1	74	51.4	59	52.5		
debate	6	discuss	69	29.0	76	36.8	64	45.3	77	46.8	52	53.8		
debt	6	something owed	84	23.8	80	26.3	66	30.3	89	32.6	62	54.8		
debtor	6	person who owes	69	13.0	93	25.8	70	31.4	80	46.3	70	37.1		
decay	6	rot	79	25.3	76	18.4	91	15.4	64	26.6	69	34.8		
deceive	6	lie	80	23.8	85	14.1	84	22.6	79	19.0	60	8.3		
December	F	month	79	55.7	76	71.1*	91	84.6*	64	95.3*	69	97.1*		
decent	6	proper	59	18.6	70	34.3	76	28.9	64	31.3	56	37.5		
decide	F	make up one's mind	71	36.6	87	25.3	72	44.4	80	58.8	56	67.9*		
decimal	6	of tens	51	21.6	63	14.3	66	19.7	53	24.5	53	49.1		
decision	6	judgement	65	26.2	71	40.8	75	40.0	66	50.0	60	46.7		
deck	F	dress	78	21.8	82	30.5	82	14.6	85	17.6	61	14.8		
deck	6	pack of cards	44	36.4	76	23.7	88	34.1	59	50.8	55	38.2		
declaration	6	statement	65	23.1	89	33.7	69	33.3	71	56.3	66	47.0		
declare	6	say	56	25.0	61	21.3	60	13.3	74	32.4	49	38.8		
decorate	6	make beautiful	60	30.0	57	36.8	66	19.7	64	29.7	53	62.3		
decoration	6	medal given as an honor	63	12.7	82	13.4	71	21.1	82	23.2	67	22.4		
decorative	6	helping to make beautiful	68	42.6	80	35.0	64	48.4	68	50.0	71	45.1		
decrease	6	make less	80	15.0	85	12.9	84	29.8	79	27.8	60	40.0		

WORD	DALE GRADE	DEFINITION	8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
deduct	6	take away	49	20.4	69	17.4	65	27.7	79	21.5	49	38.8
deed	F	something done	65	24.6	61	34.4	90	31.1	67	29.9	73	39.7
deepen	6	increase the depth of	76	27.6	87	34.5	73	24.7	78	50.0	63	55.6
deer	F	animal	69	46.4	91	60.4	83	77.1*	69	81.2*	61	93.4*
defeat	F	win	76	30.3	87	21.6	73	16.4	78	35.9	63	50.8
defend	F	guard	80	31.3	75	18.7	76	23.7	66	42.4	62	51.6
defender	6	protector	68	26.5	71	33.8	74	40.5	67	56.7	63	57.1
defenseless	6	not protected	50	16.0	93	38.7	63	38.1	76	56.6	69	53.6
defiance	6	refusing to obey	84	34.5	80	37.5	66	36.4	89	41.6	62	64.5
defiant	6	bold	60	33.3	83	18.1	75	25.3	79	29.1	60	35.0
define	6	explain	64	10.9	72	25.0	75	25.3	81	42.0	65	46.2
definite	6	clear	70	22.9	88	17.0	62	11.3	79	16.5	66	21.2
definition	6	meaning	70	22.9	88	29.5	62	24.2	79	36.7	66	54.5
deflate	6	release air	80	22.5	85	21.2	84	22.6	79	27.8	60	36.7
defrost	4	melt	80	28.8	75	25.3	76	17.1	66	45.5	62	51.6
degree	6	unit for measuring temperature	65	24.6	89	31.5	69	50.7	71	77.5*	66	72.7*
delay	4	put off	65	13.8	91	18.7	69	29.0	68	42.6	64	51.6
delegate	6	person given authority	70	34.3	63	22.2	76	35.5	70	34.3	58	39.7
delegation	6	group of delegates	61	27.9	81	23.5	77	27.3	61	37.7	70	52.9
deliberate	6	done on purpose	54	27.8	86	24.4	73	20.5	77	22.1	63	42.9
deliberately	6	on purpose	73	19.2	71	11.3	73	13.7	72	8.3	67	20.9
delicate	6	easily hurt	49	20.4	56	25.0	72	18.1	63	33.3	61	29.5
delicious	6	pleasing to the taste	64	35.9	76	23.7	70	40.0	78	37.2	60	58.3
delight	F	pleasure	63	23.8	82	30.5	71	43.7	82	57.3	67	68.7*
delightful	6	pleasing	64	21.9	72	20.8	75	37.3	81	42.0	65	50.8

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
deliver	6	set free	78	17.9	79	31.6	69	30.4	66	40.9	68	39.7
delivery	6	giving out	65	18.5	89	23.6	69	29.0	71	46.5	66	45.5
delta	6	sand at the mouth of rivers	71	19.7	87	23.0	72	23.6	80	41.3	56	55.4
demand	6	ask	65	15.4	91	20.9	69	23.2	68	29.4	64	37.5
democratic	6	treating people as equals	69	23.2	76	27.6	64	29.7	77	39.0	52	53.8
democracy	6	government run by the people	65	24.6	91	29.7	69	37.7	68	60.3	64	62.5
demolish	6	destroy	71	39.4	98	30.6	79	38.0	65	41.5	64	35.9
demonstrate	6	show	64	28.1	72	22.2	80	22.5	76	23.7	50	24.0
demonstration	6	showing	65	13.8	71	18.3	75	17.3	66	18.2	60	21.7
den	F	animal's home	60	16.3	83	23.9	75	30.7	79	62.0	60	38.3
denominator	6	number in a fraction	51	15.7	63	28.6	66	33.3	53	43.4	53	52.8
dense	6	thick	60	21.7	57	21.1	66	16.7	64	25.0	53	34.0
dent	6	hollow	45	8.9	68	17.6	79	25.3	57	22.8	51	37.3
dental	6	of the teeth	69	31.9	93	34.4	70	50.0	80	56.3	70	55.7
dentist	F	doctor	41	46.3	57	70.2*	70	72.9*	71	85.9*	51	84.3*
deny	6	say something is not true	61	27.9	81	29.6	77	29.9	61	23.0	70	34.3
deodorant	6	killer of bad odors	69	14.5	76	34.2	64	37.5	77	48.1	52	57.7
depart	6	go away	49	14.3	56	25.0	72	22.2	63	19.0	61	32.8
departure	6	act of going away	68	11.8	80	11.3	65	21.5	65	30.8	71	40.8
depend	F	trust	63	19.0	82	26.8	71	35.2	82	43.9	67	59.7
dependable	6	trusty	45	15.6	68	26.5	79	26.6	57	52.6	51	49.0
dependence	6	trust	58	17.2	70	24.3	58	27.6	57	35.1	56	50.0
dependent	6	unable to exist without	70	15.7	95	36.8	72	34.7	77	35.1	61	34.4
deposit	F	put in a place	60	16.7	70	24.3	79	27.8	82	37.8	38	42.1
deposit	6	material left by natural means	44	25.0	76	19.7	88	20.5	59	22.0	55	41.8
depot	6	station	61	11.5	74	18.9	85	22.4	64	26.6	78	28.2

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
depress	6	make sad	49	18.4	56	26.8	72	23.6	63	14.3	61	29.5
depression	6	dullness of trade	60	33.3	57	33.3	66	40.9	64	42.2	53	56.6
deprive	6	take away from	45	26.7	68	27.9	79	21.5	57	36.8	51	47.1
depth	6	measurement downwards	66	27.3	73	27.4	69	24.6	70	48.6	66	40.9
deputy	6	substitute	69	14.5	76	18.4	64	18.8	77	19.5	52	26.9
derby	6	hat	73	17.8	71	9.9	73	12.3	72	9.7	67	7.5
descend	6	come down	49	28.6	69	14.5	65	20.0	79	16.5	49	42.9
descent	6	coming down	79	30.4	76	21.1	91	17.6	64	9.4	69	27.5
describe	F	tell about	78	19.2	79	27.8	69	49.3	66	51.5	68	64.7
description	6	picture in words	58	29.3	70	30.0	58	41.4	57	42.1	56	55.4
deserter	6	person who runs away	75	17.3	88	26.1	77	27.3	74	31.1	72	40.3
deserve	F	have a right	78	21.8	79	22.8	69	37.7	66	36.4	68	54.4
design	6	plan	54	29.6	86	23.3	73	45.2	77	37.7	63	49.2
desirable	6	worth having	67	16.4	83	30.1	76	30.3	84	38.1	58	27.6
desire	F	wish	69	26.1	91	17.6	83	27.7	69	29.0	61	39.3
desk	F	table	68	52.9	80	66.3	64	85.9*	68	92.6*	71	94.4*
despair	6	loss of hope	66	19.7	73	24.7	66	19.7	86	29.1	71	35.2
desperate	6	having no hope	69	21.7	93	20.4	70	22.9	80	23.8	70	25.7
despise	6	scorn	79	29.1	75	24.0	76	19.7	83	20.5	53	30.2
dessert	6	pie or cake	65	35.4	77	33.8	76	43.4	75	60.0	68	47.1
destination	6	end of journey	78	16.7	79	12.7	69	17.4	66	31.8	68	33.8
destroy	F	break to pieces	58	22.4	70	34.3	58	32.8	57	52.6	56	64.3
destroyer	6	warship	45	20.0	68	23.5	79	27.8	57	52.6	51	62.7
destruction	6	ruin	60	16.7	70	17.1	79	27.8	82	25.6	38	47.4
destructive	6	harmful	67	17.9	83	38.6	76	40.8	84	42.9	58	58.6
detain	6	hold back	84	23.8	80	25.0	66	25.8	89	30.3	62	45.2
detective	6	policeman	45	93.3	67	29.9	79	34.2	63	52.4	53	58.5

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
determination	6	firmness	49	24.5	69	23.2	65	35.4	79	29.1	49	32.7
determine	6	decide	71	47.9	98	30.6	79	39.2	65	40.0	64	56.3
determined	6	firm	61	13.1	74	25.7	85	32.9	64	43.8	78	37.2
detour	6	roundabout way	49	16.3	56	28.6	72	33.3	63	55.6	61	68.9*
develop	6	grow	69	30.4	91	24.2	83	24.1	69	26.1	61	29.5
development	6	growth	68	35.3	80	33.8	64	46.9	68	35.3	71	39.4
devil	F	enemy of goodness	68	16.2	80	25.0	69	30.4	70	40.0	59	57.6
devilish	6	wicked	66	22.7	96	29.6	66	33.3	60	28.3	64	46.8
dewy	6	damp	65	27.7	89	28.1	69	47.8	71	59.2	66	62.1
diagnosis	6	finding out what disease a person has	78	26.9	79	25.3	69	24.6	66	24.2	68	38.2
diagram	6	drawing	57	17.5	64	21.9	63	19.0	76	32.9	53	50.9
dial	6	face of a clock	60	27.9	80	30.0	64	35.9	68	36.8	71	29.6
diameter	6	line through the center	60	30.0	70	34.3	79	34.2	82	46.8	38	55.3
diamond	F	stone	60	28.3	57	26.3	66	48.5	64	45.3	53	64.2
diary	6	record	45	26.9	68	13.2	79	22.8	57	29.8	51	41.2
dictation	6	saying for another to write	51	25.5	63	20.6	66	30.3	53	32.1	53	49.1
dictator	6	ruler	60	6.7	67	17.9	79	26.6	81	21.0	62	43.5
dictionary	6	book that explains words	68	38.2	80	42.5	64	64.1	68	72.1*	71	77.5*
die	F	stop living	70	40.0	63	61.9	76	76.3*	70	95.7*	58	94.8*
diet	6	special selection of food	76	19.7	91	19.8	75	50.7	85	67.1*	57	86.0*
dietician	6	person to plan meals	58	15.5	86	15.1	76	31.6	78	48.7	58	55.2
differ	6	be unlike	69	34.8	91	18.7	83	33.7	69	55.1	61	47.5
difference	F	amount of being different	66	43.9	73	50.7	66	54.5	86	61.6	71	63.4
different	F	not the same	80	31.3	85	44.7	84	51.2	79	64.6	60	85.0*
differently	6	in another way	58	24.1	70	34.3	58	37.9	57	42.1	56	58.9
difficult	6	hard	61	26.2	81	38.3	85	37.6	74	51.4	59	54.2
difficulty	4	a thing hard to do	63	19.0	82	22.0	71	31.0	82	36.6	67	58.2

-70-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
dig	F	turning over the ground	68	38.2	80	36.3	64	51.6	68	66.2	71	73.2*		
digest	6	change food so the body can use it	49	36.7	56	30.4	72	15.3	63	39.7	61	44.3		
digestion	6	digesting of food	69	23.2	93	25.8	70	25.7	80	33.8	70	60.0		
digestive	6	something to do with digestion	76	36.8	87	37.9	73	41.1	78	53.8	63	57.1		
dignified	6	noble	70	21.4	69	31.9	87	34.5	67	37.3	57	38.6		
dignity	6	being noble	80	25.0	85	29.4	84	14.3	79	12.7	60	11.7		
dike	6	dam	79	25.3	76	25.0	91	29.7	64	37.5	69	40.6		
dim	F	not bright	60	35.0	83	26.5	75	32.0	79	55.7	60	53.3		
dime	F	ten cents	59	35.6	86	60.5	61	80.3*	88	81.8*	63	88.9*		
dimension	6	size	49	28.6	62	29.0	57	21.1	67	20.9	57	29.8		
dimple	4	hollow in cheek	79	19.0	76	25.0	91	27.5	64	43.8	69	29.0		
diner	6	person eating	74	31.1	79	34.2	77	51.9	80	60.0	57	71.9*		
dinner	4	eating place	68	25.0	80	48.8	64	53.1	68	63.2	71	59.2		
dingy	6	dirty-looking	78	33.3	73	39.7	81	39.5	81	43.2	71	36.6		
dinner	F	meal	49	30.6	69	55.1	65	69.2*	79	81.0*	49	87.8*		
dinosaur	4	animal	60	26.7	57	38.6	66	56.1	64	54.7	53	73.6*		
dip	F	put under water	68	25.0	80	38.8	64	48.4	68	50.0	71	50.7		
diphtheria	6	disease	80	25.0	85	32.9	84	32.1	79	32.9	60	38.3		
diploma	6	paper given by a school	76	21.1	87	31.0	73	24.7	78	34.6	63	50.8		
dipper	4	container with a handle	76	35.5	91	20.9	75	36.0	85	40.0	57	54.4		
direct	F	straight	77	19.5	94	30.9	62	38.7	77	35.1	68	51.5		
direction	F	course	65	20.0	61	9.8	90	23.3	67	37.3	73	41.1		
directly	6	at once	45	22.2	68	25.0	79	24.1	57	28.1	51	29.4		
director	6	manager	54	16.7	86	30.2	73	42.5	77	51.9	63	61.9		
directory	4	list	60	28.3	67	14.9	79	53.2	81	53.1	62	64.5		
dirty	F	mud	76	38.2	87	54.0	73	68.5*	78	83.3*	63	92.1*		
dirty	F	not clean	59	39.0	86	38.4	61	63.9	88	81.8*	63	87.3*		

-71-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17		N	%
			N	%	N	%	N	%	N	%	N	%		
disagree	6	quarrel	76	27.6	91	29.7	75	30.7	85	44.7	57	42.1		
disagreement	4	difference	64	37.5	76	52.6	70	54.3	78	50.0	60	61.7		
disappear	6	pass from sight	65	18.5	89	16.0	69	24.6	71	46.5	66	50.0		
disappearance	4	going	71	14.1	87	18.4	72	29.2	80	33.8	56	42.9		
disappoint	6	fail to satisfy	60	25.0	57	36.8	66	50.0	64	59.4	53	77.4*		
disappointment	6	failure	49	24.5	56	35.7	72	50.0	63	65.1	61	68.9*		
disapproval	6	feeling against	68	30.9	80	28.8	64	40.6	68	39.7	71	47.9		
disapprove	6	consider not good	68	30.9	80	31.3	64	35.9	68	44.1	71	42.3		
disaster	4	terrible accident	49	22.4	69	27.5	65	41.5	79	36.7	49	40.8		
discharge	6	letting go	76	32.9	91	17.6	75	13.3	85	16.5	57	24.6		
disciple	6	follower	78	19.2	73	23.3	81	18.5	81	23.5	71	31.0		
discomfort	6	lack of pleasure	71	23.9	98	24.5	79	34.2	65	38.5	64	40.6		
disconnect	6	separate	79	36.7	75	25.3	76	47.4	83	39.8	53	47.2		
discontinue	6	stop	75	29.3	88	27.3	77	31.2	74	28.4	72	41.7		
discord	6	harsh sounds	51	33.3	63	30.2	66	39.4	53	35.8	53	47.2		
discourage	6	destroy hopes	68	25.0	71	32.4	74	26.4	67	44.8	63	42.9		
discouragement	6	despair	68	36.8	80	33.8	64	40.6	68	36.8	71	45.1		
discourtesy	6	rudeness	57	21.1	64	42.2	63	49.2	76	44.7	53	47.2		
discover	F	find out	60	20.0	75	26.7	76	30.3	66	53.0	62	59.7		
discovery	6	learning for the first time	68	23.5	80	25.0	64	28.1	66	51.5	71	57.7		
discuss	6	talk	64	21.9	76	17.1	70	30.0	78	20.5	60	51.7		
discussion	4	talk	52	26.9	75	24.0	85	31.8	64	40.6	52	55.8		
disease	6	sickness	69	18.8	93	36.6	70	45.7	80	51.3	70	82.9*		
disgrace	6	bring shame	61	31.1	81	23.5	85	22.4	74	39.2	59	40.7		
disgraceful	4	shocking	75	41.3	84	34.5	87	34.5	69	36.2	76	47.4		
disguise	6	hide	49	20.4	56	21.4	72	18.1	63	25.4	61	18.0		

WORD	DATE GRADE	DEFINITION	8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
disgust	6	strong dislike	84	25.0	80	38.8	66	42.4	89	47.2	62	50.0
dish	F	plate	68	33.8	80	60.0	64	70.3*	68	86.8*	71	90.1*
dishonest	4	false	68	26.5	80	26.3	64	29.7	68	38.2	71	54.9
dishonesty	6	lying	45	28.9	68	13.2	79	21.5	57	28.1	51	47.1
dishonor	6	shame	70	21.4	95	24.2	72	27.8	77	40.3	61	62.3
disinfect	6	destroy germs	49	34.7	69	43.5	65	52.3	79	50.6	49	71.4*
disinfectant	6	substance used to destroy germs	61	27.9	81	24.7	85	30.6	74	41.9	59	40.7
dislike	6	hate	80	25.0	85	27.1	84	46.4	79	57.0	60	75.0*
dismal	6	dark	67	40.3	83	31.3	76	25.0	84	19.0	58	10.3
dismiss	6	send away	63	27.0	82	23.2	71	33.8	82	37.8	67	44.8
dismissal	6	permission to go	79	26.6	75	42.7	76	52.6	83	45.8	53	45.3
dismount	4	get off	70	12.9	63	19.0	76	21.1	70	18.6	58	46.6
disobedient	6	refusing to obey	49	32.7	69	31.9	65	47.7	79	62.0	49	77.6*
disobey	4	pay no attention to	67	22.4	83	28.9	76	40.8	84	57.1	58	65.5
disorder	6	confusion	67	10.4	83	28.9	76	27.6	84	34.5	58	58.6
disorganization	6	confusion	60	28.3	57	17.5	66	28.8	64	37.5	53	54.7
disorganize	6	throw into confusion	78	19.2	82	31.7	82	25.6	85	31.8	61	34.4
display	6	show	50	30.0	68	26.5	61	41.0	60	43.3	54	59.3
displease	6	annoy	79	15.2	76	28.9	91	36.3	64	37.5	69	55.1
disposal	6	getting rid of	61	14.8	81	19.8	77	24.7	61	18.0	70	30.0
dispose	6	get rid of	78	26.9	73	20.5	81	29.6	81	37.0	71	31.0
disposition	6	way of acting	68	17.6	80	13.8	64	21.9	66	44.1	71	25.4
dispute	6	argument	68	35.3	80	36.3	64	46.9	66	54.4	71	57.7
disqualify	6	make unable	79	30.4	76	26.3	91	30.8	64	29.7	69	37.7

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
disregard	6	pay no attention to	84	38.1	80	32.5	66	30.3	89	34.8	62	58.1
disrespect	6	rudeness	58	24.1	70	44.3	58	37.9	57	43.9	56	73.2*
disrespectful	6	rude	68	19.1	80	16.3	69	17.4	70	40.0	59	33.9
dissatisfied	6	discontented	61	36.1	81	49.4	85	45.9	74	50.0	59	37.3
dissolve	6	make liquid	50	18.0	68	35.3	61	37.7	60	31.7	54	38.9
distance	4	length	56	5.4	61	23.0	60	26.7	74	55.4	49	69.4*
distant	4	far away	44	13.6	76	22.4	88	35.2	59	30.5	55	52.7
distasteful	6	unpleasant	60	28.3	57	49.1	66	47.0	64	48.4	53	50.9
distinct	6	clear	60	13.3	70	20.0	79	12.7	82	24.4	38	23.7
distinction	6	a mark of honor	60	21.7	57	22.8	66	21.2	64	17.2	53	30.2
distract	6	draw away attention	60	21.7	70	35.7	79	41.8	82	39.0	38	55.3
distract	6	confusion	79	46.8	75	30.7	76	43.4	83	45.8	53	58.5
distract	6	trouble	67	19.4	83	26.4	76	30.3	84	40.5	58	36.2
distribution	6	division among	67	29.9	83	47.0	76	51.3	84	36.9	58	37.9
district	6	neighborhood	79	27.8	75	36.0	76	28.9	83	28.9	53	35.8
distrust	4	question	60	31.7	70	38.6	79	36.7	82	35.4	38	18.4
disturb	6	trouble	67	22.4	83	42.2	76	32.9	84	56.0	58	56.9
ditch	F	canal	50	36.0	68	23.5	61	36.1	60	41.7	54	55.6
dive	F	go below water	60	23.3	70	40.0	79	51.9	82	58.5	38	60.5
divide	F	separate	60	21.7	70	40.0	79	46.8	82	53.7	38	76.3*
dividend	6	number to be divided	50	20.0	68	32.4	61	52.5	60	63.3	54	59.3
divine	6	heavenly	58	22.4	70	30.0	58	31.0	57	33.3	56	48.2
divisor	6	number that divides	70	34.3	80	32.5	58	50.0	74	48.6	67	56.7
divorce	6	separate	50	16.0	68	23.5	61	41.0	60	40.0	54	55.6
dizzy	4	foolish	60	25.0	79	32.9	82	48.8	66	56.1	72	50.0

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
dizzy	6	feeling about to fall	80	18.8	85	35.3	84	42.9	79	55.7	60	75.0*
do	F	carry out	68	30.9	71	43.7	74	48.6	67	49.3	63	73.0*
dock	F	platform	50	18.0	68	27.9	61	41.0	60	45.0	54	59.3
dodge	4	get away from	50	32.0	68	14.7	61	32.8	60	28.3	54	29.6
dog	F	animal	50	48.0	68	60.3	61	83.6*	60	90.0*	54	90.7*
dolly	6	piece of paper	75	21.3	88	27.3	77	26.0	74	25.7	72	25.0
doll	F	toy	60	51.7	79	68.4*	82	81.7*	66	90.9*	72	94.4*
dollar	F	one hundred cents	60	35.0	83	60.2	75	78.7*	79	88.6*	60	86.7*
dome	6	rounded roof	50	32.0	93	33.3	63	54.0	76	51.3	69	39.1
dominoes	6	a game	50	32.0	68	36.8	61	34.4	60	38.3	54	53.7
donate	6	give	67	22.4	83	10.8	76	18.4	84	23.8	58	25.9
donkey	F	animal	58	37.9	70	61.4	58	81.0*	57	75.4*	56	96.4*
door	F	opening in a wall	66	28.8	73	65.8	66	66.7*	86	82.6*	71	85.9*
doorknob	F	handle	64	32.8	76	40.8	70	50.0	78	59.0	60	70.0*
doorstep	F	stair	57	40.4	64	46.9	63	36.5	76	61.8	53	66.0
doorway	4	opening in the wall	60	23.3	67	47.8	79	69.6*	81	70.4*	62	77.4*
dope	4	drug	65	32.3	91	24.2	69	34.8	68	51.5	64	59.4
dormitory	6	sleeping rooms	49	26.5	62	58.1	57	59.6	67	70.1*	57	82.5*
dose	4	amount	65	23.1	89	22.5	69	23.2	71	19.7	66	15.2
dot	F	spot	41	19.5	57	42.1	70	61.4	71	60.6	51	72.5*
double	F	make twice	41	29.3	57	29.8	70	54.3	71	59.2	51	66.7*
doubt	6	not believe	41	26.8	57	26.3	70	47.1	71	46.5	51	58.8
doubtful	6	not certain	56	25.0	77	22.1	79	30.4	76	35.5	47	48.9
doubtless	6	surely	56	26.8	61	50.8	60	45.0	74	63.5	49	83.7*
doughnut	4	cake	65	30.8	77	41.6	76	60.5	75	81.3*	68	75.0*

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
douse	6	throw water over	56	32.1	61	13.1	60	16.7	74	14.9	49	14.3		
dove	F	bird	50	42.0	68	32.4	61	39.3	60	63.3	54	61.1		
down	F	to a lower place	56	26.8	77	35.1	79	54.4	76	61.8	47	74.5*		
downfall	6	drop	41	24.4	57	50.9	70	58.6	71	81.7*	51	86.3*		
downhearted	6	sad	56	35.7	77	28.6	79	41.8	76	48.7	47	70.2*		
downstairs	F	to a lower floor	56	32.1	77	51.9	79	65.8	76	73.7*	47	83.0*		
downtown	F	business part of town	58	27.6	70	41.4	58	34.5	57	45.6	56	60.7		
downwards	6	from a higher to lower place	59	15.3	86	31.4	61	50.8	88	54.5	63	55.6		
downy	6	soft	68	26.5	71	26.8	74	28.4	67	29.9	63	30.2		
doze	6	light sleep	49	24.5	69	24.6	65	24.6	79	31.6	49	34.7		
dozen	F	twelve	59	42.4	70	28.6	76	48.7	64	67.2*	56	73.2*		
draft	6	call up	50	18.0	68	17.6	61	9.8	60	16.7	54	31.5		
draftsman	6	artist	50	14.0	68	22.1	61	31.1	60	25.0	54	46.3		
drag	F	pull	41	19.5	57	29.8	70	21.4	71	38.0	51	45.1		
dragon	6	huge snake	65	27.7	91	40.7	69	43.5	68	54.4	64	53.1		
dragonfly	6	insect	56	28.6	61	39.3	60	53.3	74	71.6*	49	75.5*		
drain	F	draw off water	67	38.8	83	43.4	76	42.1	84	41.7	58	51.7		
drainage	6	drawing off water	56	25.0	77	29.9	79	34.2	76	46.1	47	51.1		
drake	6	duck	70	35.7	63	30.2	76	23.7	70	21.4	58	17.2		
drama	6	play	50	32.0	68	22.1	61	23.0	60	36.7	54	51.9		
dramatic	6	exciting	60	16.7	83	10.8	75	30.7	79	34.2	60	43.3		
dramatist	6	writer	59	27.1	56	19.6	49	20.4	67	22.4	55	32.7		
dramatize	6	present in a play	49	34.7	56	30.4	72	29.2	63	33.3	61	42.6		
drape	6	cover	60	31.7	57	10.5	66	24.2	64	42.2	53	50.9		
draperies	6	cloths for hanging	59	16.9	86	30.2	61	29.5	88	42.0	63	33.3		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
draw	F	make a picture	50	44.0	68	61.8	61	85.2*	60	88.3*	54	92.6*		
drawbridge	6	bridge that can be moved	70	12.9	69	29.0	87	35.6	67	41.8	57	52.6		
drawer	F	painter	56	33.9	61	41.0	60	56.7	74	55.4	49	53.1		
drawing	F	a picture	76	46.1	87	74.7*	73	82.2*	78	87.2*	63	93.7*		
dread	6	fear	84	28.6	80	36.3	66	39.4	89	55.1	62	53.2		
dreadful	6	awful	41	41.5	57	26.3	70	32.9	71	39.4	51	45.1		
dream	F	something seen during sleep	41	39.0	57	54.4	70	57.1	71	80.3*	51	88.2*		
drench	6	wet	70	30.0	95	20.0	72	15.3	77	24.7	61	16.4		
dress	F	put clothes on	68	52.9	71	57.7	74	82.4*	67	89.6*	63	90.5*		
dresser	F	furniture	67	37.3	70	42.9	73	60.3	72	59.7	73	67.1*		
dressmaker	F	person whose work is making dresses	56	17.9	61	42.6	60	36.7	74	78.4*	49	73.5*		
dressy	6	flashy	63	14.3	82	26.8	71	29.6	82	31.7	67	44.8		
drier	6	machine that removes water	41	29.3	57	45.6	70	38.6	71	56.3	51	76.5*		
driftwood	6	wood washed ashore	65	26.2	89	29.2	69	33.3	71	39.4	66	51.5		
drill	F	make a hole	50	26.0	68	26.5	61	36.1	60	40.0	54	57.4		
drink	F	take in	57	17.5	64	46.9	63	55.6	76	57.9	53	69.8*		
drinker	6	one who drinks	50	38.0	68	32.4	61	47.5	60	46.7	54	74.1*		
drip	F	fall in drops	41	34.1	57	47.4	70	45.7	71	67.6*	51	72.5*		
drive	F	make go	76	25.0	87	37.9	73	61.6	78	71.8*	63	87.3*		
driver	F	person who drives	73	31.5	71	43.7	73	63.0	72	79.2*	67	88.1*		
driveway	6	road	50	28.0	68	51.5	61	75.4*	60	76.7*	54	83.3*		
drizzle	6	rain	61	34.4	74	29.7	65	32.9	64	31.3	78	36.5		
droop	6	hang	65	12.3	89	29.2	69	43.5	71	38.0	66	31.8		
drown	F	die under water	49	18.4	56	35.7	72	45.8	63	66.7*	61	68.9*		

-77-

WORD	DATE GRADE	DEFINITION	8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
drowse	6	sleep	66	29.4	71	22.5	74	23.0	67	22.4	63	31.7
drowsy	6	sleepy	70	15.7	80	30.0	58	27.6	74	32.4	67	47.8
drum	F	beat	68	29.4	80	30.8	64	43.8	68	54.4	71	52.1
drummer	6	musician	65	30.8	91	42.9	69	50.7	68	67.6*	64	75.0*
drunkard	6	person who drinks too much	48	37.5	70	48.6	59	59.3	66	75.8*	57	78.9*
drunkenness	6	intoxication	49	20.4	56	33.9	72	47.2	63	63.5	61	70.5*
dry	F	not wet	69	29.0	93	49.5	70	75.7*	80	85.0*	70	91.4*
duchess	6	wife of a duke	70	30.0	88	34.1	62	38.7	79	39.2	66	39.4
duck	6	keep off a blow	45	24.4	68	22.1	79	8.9	57	10.5	51	15.7
duck	F	bird	67	61.2	83	63.9	76	82.9*	84	78.6*	58	87.9*
due	6	expected	79	30.4	76	18.4	91	37.4	64	51.6	69	63.8
due	F	to be paid	49	20.4	56	25.0	72	37.5	63	41.3	61	54.1
duel	6	fight	70	25.7	95	24.2	72	34.7	77	22.1	61	26.2
duet	6	two voices	50	18.0	68	16.2	61	13.1	60	20.0	54	13.0
dugout	6	shelter	59	13.6	70	35.7	76	34.2	64	42.2	56	35.7
duke	6	nobleman	71	23.9	98	27.6	79	32.9	65	35.4	64	48.4
dull	F	not sharp	70	20.0	63	44.4	76	36.8	70	44.3	58	63.8
dumb	F	not able to speak	80	25.0	85	25.9	84	27.4	79	35.4	60	45.0
dump	F	throw down	49	18.4	69	40.6	65	36.9	79	51.9	49	81.6*
dumpling	6	food	50	28.0	68	14.7	61	18.0	60	21.7	54	25.9
dunce	6	stupid person	70	21.4	95	22.1	72	43.1	77	66.2	61	65.6
dungeon	4	room	76	22.4	91	13.2	75	22.7	85	27.1	57	15.8
duplicate	6	make a copy of	65	32.3	61	26.2	90	21.1	67	29.9	73	31.5
duplication	6	copy	78	30.8	73	21.9	81	14.8	81	16.0	71	12.7
during	F	while	50	20.0	68	26.5	61	45.9	60	46.7	54	72.2*
dusk	6	the time before dark	68	29.4	74	40.5	76	32.9	70	42.9	69	33.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
dusky	6	dark	49	30.6	56	41.1	72	29.2	63	34.9	61	34.4
dust	F	dry earth	61	26.2	74	31.1	85	42.4	64	60.9	78	64.1
duty	F	work	78	25.6	79	29.1	69	49.3	66	60.6	68	66.2
dwarf	F	elf	57	24.6	64	39.1	63	39.7	76	47.4	53	56.6
dwell	F	live in	63	33.3	82	30.5	71	26.8	82	23.2	67	23.9
dweller	6	tenant	68	14.7	80	20.0	64	21.9	68	20.6	71	21.1
dwelling	6	house	78	30.8	82	19.5	82	12.2	85	15.3	61	19.7
dye	6	to color	65	30.8	61	37.7	90	36.7	67	44.8	73	60.3
dying	F	near death	54	27.8	86	33.7	73	35.6	77	46.8	63	54.0
dynamite	6	explosive	66	28.8	98	42.9	66	43.9	60	56.7	84	63.1

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
each	F	every one	58	31.0	86	45.3	76	57.9	78	69.2*	58	82.8*		
eager	F	wanting very much	75	20.0	88	21.6	77	26.0	74	41.9	72	51.4		
eagerness	6	longing	60	10.0	70	21.4	79	15.2	82	18.3	38	15.8		
eagle	F	bird	68	45.6	80	63.8	64	59.4	68	86.8*	71	83.1*		
ear	F	part of the body	68	25.0	80	41.3	65	69.2*	65	84.6*	71	78.9*		
earl	6	noble	60	21.7	67	22.4	79	31.6	81	43.2	62	32.3		
early	F	in the beginning	49	18.4	62	37.1	57	45.6	67	64.2	57	68.4*		
earn	F	get in return for work	79	17.7	76	28.9	91	42.9	64	57.8	69	69.6*		
earnest	6	serious	44	25.0	76	21.1	88	26.1	59	25.4	55	10.9		
earnestness	6	seriousness	73	34.2	71	45.1	73	50.7	72	55.6	67	53.7		
earring	6	ornament	75	17.3	84	20.2	87	27.6	69	44.9	76	52.6		
earth	F	land	70	34.3	95	40.0	72	65.3	77	75.3*	61	93.4*		
earthenware	6	dishes	49	20.4	62	17.7	57	7.0	67	11.9	57	22.8		
earthly	6	worldly	70	22.9	63	34.9	76	53.9	70	58.6	58	81.0		
earthquake	4	shaking of the ground	45	20.0	67	31.3	79	36.7	63	71.4*	53	69.8*		
earthworm	4	worm	70	38.6	63	34.9	76	60.5	70	67.1*	58	82.8*		
ease	6	comfort	78	24.4	73	16.4	81	30.9	81	32.1	71	45.1		
easel	6	support for a picture	79	20.3	76	21.1	91	15.4	64	17.2	69	21.7		
easily	4	without difficulty	60	28.3	83	25.3	75	50.7	79	62.0	60	50.0		
east	F	the direction of the sunrise	51	29.4	63	36.5	66	56.1	53	73.6*	53	84.9*		
eastern	F	toward the east	71	38.0	98	33.7	79	59.5	65	53.8	64	84.4*		
easy	F	not hard	60	23.3	83	41.0	75	68.0*	79	82.3*	60	85.0*		
easygoing	6	calm	54	31.5	86	18.6	73	23.3	77	24.7	63	27.0		
eat	F	chew and swallow food	66	48.5	73	65.8	69	82.6*	70	94.3*	66	90.9*		
eatable	6	fit to eat	48	45.8	70	38.6	59	52.5	66	56.1	57	50.9		
eaves	6	edge of a roof	58	34.5	70	30.0	58	44.8	57	38.6	56	50.0		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
eavesdrop	6	listen	69	21.7	93	19.4	70	15.7	80	11.3	70	17.1
echo	4	sounding again	60	21.7	70	27.1	79	29.1	82	54.9	38	55.3
eclipse	6	cut off the light from	54	40.7	86	31.4	73	32.9	77	22.1	63	36.5
economical	6	thrifty	70	15.7	95	15.8	72	25.0	77	22.1	61	16.4
economize	6	use little	69	27.5	93	26.9	70	14.3	80	15.0	70	18.6
edge	F	side	80	25.0	75	24.0	76	18.4	66	36.4	62	48.4
editor	6	reviewer	60	31.7	57	38.6	66	47.0	64	45.3	53	62.3
educate	6	teach	71	21.1	98	28.6	79	34.2	65	49.2	64	54.7
education	4	teaching	76	26.3	87	20.7	73	20.5	78	51.3	63	63.5
educational	6	-having to do with education	70	27.1	69	46.4	87	56.3	67	58.2	57	66.7*
educator	6	teacher	65	29.2	61	31.1	90	40.0	67	32.8	73	60.3
eel	6	fish	67	31.3	83	36.1	76	59.2	84	59.5	58	67.2*
effect	6	result	57	29.8	64	39.1	63	39.7	76	60.5	53	58.5
effective	6	able to cause something	57	35.1	64	26.6	63	33.3	76	48.7	53	60.4
effort	6	trying	68	22.1	71	25.4	74	40.5	67	29.9	63	49.2
egg	F	seed	60	21.7	57	36.8	66	40.9	64	43.8	53	45.3
eight	F	one more than seven	60	55.0	70	65.7	79	82.3*	82	91.5*	38	84.2*
eighteen	F	eight more than 10	58	58.6	86	66.3	76	72.4*	78	61.5	58	77.6*
eightth	F	next after seventh	66	48.5	73	52.1	69	65.2	70	82.9*	66	92.4*
eighty	F	8 x 10	68	38.2	74	48.6	76	55.3	70	67.1*	69	60.9
either	F	one or the other	44	22.7	76	28.9	88	39.8	59	33.9	55	56.4
elastic	4	can be stretched	84	16.7	80	33.8	66	34.8	89	32.6	62	58.1
elbow	F	bend of the arm	49	30.6	56	53.6	72	58.3	63	74.6*	61	91.8*
elder	F	older	48	22.9	70	30.0	59	42.4	66	36.4	57	35.1
eldest	F	oldest	68	41.2	71	45.1	74	35.1	67	47.8	63	49.2
elderly	6	old	74	28.4	79	19.0	77	22.1	80	25.0	57	43.9
elect	4	choose	59	28.8	56	32.1	49	36.7	67	37.3	55	56.4

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
election	4	choosing	60	21.7	79	19.0	82	43.9	66	57.6	72	58.3		
elector	6	voter	64	34.4	72	33.3	80	42.5	76	55.3	50	72.0*		
electric	F	of electricity	84	22.6	80	38.8	66	60.6	89	87.6*	62	88.7*		
electrical	6	electric	79	30.4	76	52.6	91	68.1*	64	82.8*	69	88.4*		
electrician	6	person who repairs wiring	66	30.3	98	34.7	66	50.0	60	63.3	84	81.0*		
elegance	6	grace	70	32.9	88	26.1	62	38.7	79	46.8	66	45.5		
elegant	6	showing good taste	70	30.0	95	33.7	72	27.8	77	20.8	61	29.5		
elementary	6	basic	78	21.8	82	22.0	82	15.9	85	32.9	61	27.9		
elephant	F	animal	49	44.9	62	79.0*	57	78.9*	67	92.5*	57	94.7*		
elevate	6	raise	54	25.9	86	26.7	73	34.2	77	42.9	63	61.9		
elevation	6	high place	58	32.8	66	30.2	76	39.5	78	51.3	58	46.6		
elevator	4	machine for carrying	65	35.4	77	37.7	76	60.5	75	77.3*	68	72.1*		
eleven	F	one more than 10	69	36.2	91	48.4	83	74.7*	69	85.5*	61	86.9*		
elf	F	tiny being	75	22.7	84	16.7	87	29.9	69	52.2	76	48.7		
eligible	6	fit to be chosen	59	23.7	56	17.9	49	24.5	67	35.8	55	29.1		
eliminate	6	remove	76	25.0	91	25.3	75	34.7	85	37.6	57	40.4		
elk	6	deer	59	27.1	56	44.6	49	57.1	67	49.3	55	54.5		
elm	F	tree	61	21.3	74	28.4	85	36.5	64	46.9	78	56.4		
elope	6	run away to get married	73	30.1	71	28.2	73	15.1	72	23.6	67	40.3		
elopement	6	flight	71	21.1	87	39.1	72	25.0	80	27.5	56	39.3		
eloquent	6	expressive	68	35.3	80	37.5	64	39.1	68	44.1	71	40.8		
else	F	other	73	20.5	71	31.0	73	41.1	72	61.1	67	79.1*		
elsewhere	F	in some other place	56	30.4	61	39.3	60	45.0	74	56.8	49	71.4*		
embarrass	6	make uncomfortable	45	33.3	67	37.3	79	39.2	63	44.4	53	60.4		
embarrassment	6	shame	75	34.7	84	22.6	87	32.2	69	55.1	76	48.7		
emblem	6	symbol	76	28.9	87	33.3	73	26.0	78	42.3	63	46.0		
embrace	6	hug	71	25.4	98	26.5	79	27.8	65	24.6	64	31.3		

-82-

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
embroidery	6	needlework	80	36.3	85	26.2	84	28.6	79	34.2	60	40.0
emerald	6	jewel	63	27.0	82	25.6	71	45.1	82	43.9	67	47.8
emergency	6	need for immediate action	49	28.6	69	36.2	65	40.0	79	34.4	69	71.6*
emotional	6	sensitive	44	29.5	76	32.9	86	36.4	59	35.6	55	36.4
emperor	6	ruler	70	15.7	69	13.0	87	20.7	67	41.8	57	43.8
empire	6	nation	59	16.9	56	26.8	49	30.6	67	41.8	55	34.3
employ	6	give work	61	24.6	81	22.2	85	27.1	74	43.2	59	61.0
employee	6	person who works	49	26.5	56	26.6	72	43.1	63	47.6	61	75.4*
employer	6	boss	49	26.5	69	20.3	65	30.0	79	32.9	49	67.3*
employment	6	job	79	24.1	76	28.9	91	46.2	64	33.1	60	75.4*
empress	6	queen	69	33.3	93	28.0	70	22.9	80	16.3	70	9.7
emptiness	6	lack of contents	60	20.6	80	20.0	64	29.7	66	32.4	71	40.8
empty	6	with nothing in it	84	25.0	80	37.5	66	42.4	69	36.2	62	66.1
enamel	6	paint	73	20.5	71	4.2	73	8.2	72	20.8	67	23.9
enchant	6	charm	66	25.8	73	21.9	69	29.0	70	27.1	66	28.8
enchantment	6	charm	60	13.3	57	22.8	66	24.2	64	28.1	53	33.8
encircle	6	surround	60	20.0	57	31.6	66	34.8	64	34.7	53	62.3
enclose	4	shut in	70	24.3	95	22.1	72	29.2	77	40.3	61	65.6
enclosure	4	put in an envelope	79	29.1	76	36.8	91	40.7	64	33.1	69	47.8
encourage	6	pen	84	19.0	80	20.0	66	18.2	89	20.2	62	26.2
encouragement	6	give hope	41	17.1	57	12.3	70	20.0	71	43.1	51	32.9
encyclopedia	6	something that gives hope	56	25.0	77	26.0	79	49.4	76	46.1	47	68.1*
end	7	book	65	27.7	71	25.4	75	32.0	66	37.9	60	33.3
endanger	6	last part	60	26.7	83	38.6	75	36.0	79	66.1*	60	73.3*
endless	6	risk	60	15.0	57	12.3	66	24.8	64	26.6	53	26.6
endurance	6	never stopping	59	20.3	56	28.6	49	32.7	67	47.8	55	36.4
	6	ability to continue	79	30.4	76	31.6	91	47.3	64	23.0	69	69.3

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
enemy	F	not a friend	60	31.7	70	47.1	79	44.3	81	37.3	88	40.3		
energetic	6	lively	80	23.8	85	22.4	84	19.0	79	24.1	60	26.7		
energy	6	power	51	37.3	63	22.2	66	37.9	53	43.4	53	40.4		
enforce	6	say it must be done	66	21.2	73	21.9	69	18.8	70	28.6	66	47.0		
engage	6	hire	74	23.0	79	26.6	77	19.5	80	27.5	57	29.8		
engagement	6	promise to marry	67	26.9	83	44.6	76	39.5	84	32.4	58	24.2		
engine	F	machine	71	40.8	98	48.0	79	38.2	65	44.2	64	43.9		
engineer	F	driver	76	18.4	91	41.8	75	46.7	85	43.5	57	24.1		
engineering	6	profession	67	31.3	83	33.7	76	31.6	84	47.6	58	28.6		
English	F	language	76	34.2	87	46.0	73	60.3	78	79.3	63	92.1		
engrave	6	carve	45	22.2	68	26.5	79	24.1	57	33.3	51	29.4		
engraving	6	art of cutting	60	30.0	83	31.3	75	30.7	79	32.9	60	33.3		
enjoy	F	be happy with	68	35.3	80	43.8	64	50.0	68	50.8	71	77.9		
enjoyable	6	pleasant	65	21.5	91	20.9	69	34.8	66	57.4	64	43.6		
enjoyment	6	pleasure	65	24.6	77	44.2	76	57.9	75	70.7	68	79.4		
enlarge	4	make greater	67	20.9	70	27.1	73	46.6	72	66.7	73	68.5		
enlargement	6	expansion	76	28.9	91	35.2	75	38.7	65	54.1	57	39.6		
enlist	6	join	57	31.6	64	20.3	63	19.0	76	32.9	53	37.7		
enlistment	6	signing up	54	29.6	86	18.6	73	32.9	77	22.1	63	24.5		
enormous	6	huge	59	15.3	56	23.2	49	26.5	67	26.9	55	40.0		
enough	F	as many as needed	60	11.7	70	25.7	79	40.5	62	54.9	58	37.9		
enrage	6	make angry	79	26.6	75	32.0	76	36.8	83	44.6	53	43.4		
enrich	6	make wealthy	70	20.0	88	23.9	62	32.3	79	43.0	66	43.5		
enroll	6	become a member	64	21.9	72	23.6	80	30.8	76	35.5	50	30.0		
enslave	6	take away freedom	48	25.0	70	25.7	59	30.5	66	51.5	57	41.4		
entangle	6	get caught	61	23.0	81	23.5	77	27.3	61	18.0	70	20.6		
enter	F	go into	78	20.5	79	32.9	69	46.4	66	59.1	68	73.3		

-84-

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
entertain	6	to please	79	17.7	75	18.7	76	27.6	83	37.3	53	50.9
entertainment	6	something that amuses	65	36.9	91	36.3	69	34.8	68	41.2	64	40.4
enthusiasm	6	eager interest	65	30.8	61	42.6	90	40.0	67	53.7	73	43.8
enthusiast	6	person who is filled with enthusiasm	66	33.3	73	43.8	69	46.4	70	38.6	68	39.4
enthusiastic	6	eagerly interested	70	42.9	80	46.6	56	60.3	74	64.9	67	50.2
entire	6	whole	70	20.0	63	22.2	76	30.3	70	37.1	58	53.4
entirely	6	completely	60	33.3	67	35.8	79	46.1	81	51.9	62	46.8
entrance	6	doorway	69	23.2	91	36.5	83	45.8	69	44.9	61	34.1
entrust	6	turn over to	70	30.0	69	17.4	87	26.4	67	29.9	57	52.6
entry	6	person in a contest	49	14.3	56	14.3	72	18.1	63	30.2	61	49.2
entry	6	passage into	80	20.0	85	24.7	84	25.0	79	31.6	60	48.3
envelope	F	case	77	27.3	94	28.7	62	43.5	77	48.1	68	40.3
envy	6	long for what someone else possesses	70	38.6	69	33.3	87	29.9	67	32.8	57	38.6
equal	F	same amount	64	17.2	72	20.8	80	40.0	76	37.9	50	42.8
equally	6	alike	66	25.8	73	26.8	66	30.3	86	44.2	71	53.3
equator	6	an imaginary circle around the earth	68	29.4	80	30.0	65	53.8	65	60.0	71	63.5*
equip	6	provide	67	17.9	83	21.7	76	27.6	84	35.7	58	37.9
equipment	4	tools	70	27.1	80	16.6	58	22.4	74	41.9	67	40.3
erase	F	rub out	44	31.8	76	34.2	88	61.4	59	35.6	55	36.4*
errand	F	trip to do something	49	18.4	62	24.2	57	29.8	67	37.3	57	36.1
error	6	mistake	56	21.4	77	22.1	79	34.2	76	34.2	67	63.8
erupt	6	burst	76	32.9	91	30.6	75	37.3	85	46.2	57	42.1
eruption	6	bursting	79	32.9	75	30.7	76	35.3	83	59.0	53	66.2
escalator	6	moving stairway	69	29.0	91	36.3	83	45.8	69	64.9	61	42.6
escape	F	get free	69	43.5	76	30.3	64	37.5	77	58.7	52	39.6
especial	6	exceptional	69	26.1	76	32.9	64	43.8	77	50.6	52	64.3

WORD	DATE GRADE	DEFINITION	8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
especially	6	particularly	76	25.0	91	44.0	75	41.3	85	57.6	57	37.9
essay	6	composition	76	23.7	91	27.5	75	26.7	85	49.4	57	34.4
establish	6	set up	41	22.0	57	15.8	70	25.7	71	29.6	51	39.2
establishment	6	business	76	32.9	91	42.9	75	50.7	85	58.8	57	44.7
estate	6	property	66	30.3	73	23.3	69	23.2	70	32.9	66	42.1
estimate	6	judgement	76	23.7	87	29.9	73	41.1	78	47.4	63	47.6
estimation	6	judgement	68	26.5	71	36.6	74	36.5	67	53.7	63	47.6
eternal	6	without ending	69	40.6	76	40.8	64	40.6	77	54.3	52	36.5
eternity	6	all time	45	15.6	67	25.4	79	20.3	63	25.4	53	30.2
ether	6	a drug	60	26.7	79	24.1	82	22.0	66	10.6	72	16.7
evaporate	6	remove water from	69	29.0	91	33.0	83	45.8	69	58.0	61	35.7
evaporation	6	boiling away	52	17.3	75	14.7	85	27.1	64	39.1	52	39.6
eve	F	night before	75	30.7	84	35.7	87	34.5	69	55.1	76	55.3
even	F	flat	45	17.8	67	20.9	79	31.6	63	34.9	53	35.8
even	6	equal	68	25.0	80	31.3	69	44.9	70	55.7	59	44.1
evening	F	time between sunset and bedtime	66	22.7	73	60.3	66	51.5	86	74.4	71	80.3
event	6	happening	61	24.6	81	27.2	77	32.5	61	37.7	70	42.9
eventful	6	full of incidents	70	22.9	63	34.9	76	36.8	70	42.9	58	44.8
ever	F	at any time	49	28.6	62	41.9	57	56.1	67	61.2	57	77.2
evergreen	6	plant	80	30.0	85	45.9	84	53.6	79	69.6	60	81.7
everlasting	6	never stopping	80	31.3	85	38.8	84	44.0	79	44.3	60	55.0
evermore	6	always	63	22.2	82	41.5	71	42.3	82	67.1	67	59.7
every	F	each one	67	37.3	70	52.9	73	67.1	72	77.8	73	82.2
everybody	F	every person	51	21.6	63	38.1	66	66.7	53	73.6	53	63.0
everyday	F	daily	65	23.1	61	23.0	90	44.4	67	49.3	73	72.6
everyone	F	each one	77	24.7	94	39.4	62	32.3	77	66.8	66	79.6

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
everything	F	all things	60	36.7	70	51.4	79	70.9*	82	75.6*	88	72.3*
everywhere	F	in all places	70	32.9	69	31.9	87	70.1*	67	77.6*	57	66.0*
evidence	6	facts	64	18.8	76	14.5	70	10.0	78	26.9	60	40.0
evident	6	clear	51	19.6	63	15.9	66	21.2	53	32.1	53	39.6
evidently	6	clearly	75	24.0	88	17.0	77	20.6	74	21.6	72	23.6
evil	F	bad	61	23.0	81	50.6	85	60.0	74	71.6*	59	70.0*
exact	F	without any mistake	68	29.4	80	28.8	64	28.1	68	32.4	71	32.4
examination	6	test	76	19.7	91	27.5	75	48.0	85	50.8	57	80.3*
examine	6	look at closely	50	28.0	93	26.9	63	36.5	76	36.8	69	33.3
examiner	6	investigator	66	31.8	73	23.3	69	40.6	70	54.3	66	62.1
example	6	a sample	61	24.6	81	32.1	77	57.1	61	54.1	70	81.6*
exceeding	6	very great	66	21.2	73	30.1	66	30.3	86	29.1	71	35.2
excellence	6	high quality	68	29.4	80	21.3	64	25.0	68	36.8	71	35.2
excellent	6	very good	48	22.9	70	45.7	59	27.1	66	56.1	57	59.6
except	F	but	78	23.1	82	15.9	82	22.0	85	35.1	61	31.1
exception	6	different from the rule	64	26.6	72	30.6	75	25.3	81	32.1	65	32.3
exceptional	6	unusual	48	20.8	70	17.1	59	23.7	66	25.8	57	35.1
exchange	F	give and take	51	25.5	63	20.6	66	59.1	53	62.3	53	75.3*
excitable	6	easily excited	60	23.3	57	40.4	66	24.2	64	37.5	53	49.1
excite	6	stir up	60	23.3	57	22.8	66	28.8	64	32.8	53	50.9
exclaim	6	speak suddenly	70	21.4	69	24.6	87	50.6	67	40.3	57	43.9
exclamation	6	outcry	74	35.1	79	19.0	77	24.7	80	18.8	57	15.8
excuse	F	pardon	48	14.6	70	24.3	59	44.1	66	53.0	57	64.9
execute	6	put to death	70	15.7	80	16.3	58	22.4	74	25.7	67	30.8
exhaust	6	steam that escapes	78	30.8	79	36.7	69	42.0	66	27.3	68	45.6
exhaustion	6	collapse	65	13.8	89	24.7	69	27.5	71	43.7	66	42.6

WORD	DALE GRADE	DEFINITION	8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
exhibit	6	show	78	33.3	79	24.1	69	33.3	66	40.9	68	30.0
exhibition	6	showing	78	24.4	73	32.9	81	25.9	81	44.4	71	36.3
exile	6	make go from country	73	31.5	71	21.1	73	17.0	72	27.0	67	28.4
exist	6	live	70	20.0	63	17.5	76	21.1	70	11.4	58	29.3
existence	6	life	80	26.3	75	25.3	76	11.0	66	22.7	62	24.2
exit	F	way out	75	22.7	84	39.3	87	62.1	69	68.1	76	76.3
expand	6	spread out	75	32.0	88	37.5	77	49.4	74	55.4	72	72.3
expansion	6	increase	74	28.4	79	31.6	77	41.6	80	48.8	57	47.4
expect	F	look for	67	28.4	70	31.4	73	27.4	72	37.5	73	39.7
expectant	6	looking for	66	21.2	73	31.5	66	16.7	86	31.4	71	42.3
expedition	6	journey	61	24.6	81	43.2	77	54.5	61	50.8	70	70.0
expel	6	drive out	79	16.5	76	21.1	91	19.8	64	25.0	60	37.7
expense	6	cost	60	15.0	67	20.9	79	38.0	81	40.7	62	39.7
expensive	6	costly	68	14.7	80	10.0	64	39.1	68	41.2	71	34.9
experience	6	knowledge gained	76	31.6	87	32.2	73	39.7	78	61.5	63	69.0
experiment	6	try	48	22.9	70	32.9	59	18.6	66	34.8	57	45.6
expert	6	one with special skill	68	23.5	80	26.3	64	42.2	68	32.4	71	63.4
expire	6	come to an end	66	24.2	73	23.3	66	22.7	86	26.7	71	31.0
explain	F	make clear	60	18.3	67	13.4	79	34.2	81	50.6	62	54.5
explanation	6	clearing up a difficulty	69	24.6	76	40.8	64	51.6	77	42.9	52	67.3
explode	6	blow up	68	27.9	80	30.0	64	31.3	68	39.7	71	39.4
explore	6	travel through	70	21.4	80	23.8	58	37.9	74	56.8	67	68.7
explorer	6	traveler	70	18.6	69	29.0	87	42.5	67	56.7	57	63.2
explosion	6	blast	51	17.6	63	17.5	66	33.3	53	43.4	53	67.0
explosive	6	tending to burst	60	15.0	67	29.9	79	35.4	81	49.4	62	53.2
export	6	send out of one's country	59	20.3	56	33.9	49	26.5	67	35.8	55	52.7
expose	6	show	65	26.2	61	19.7	90	23.3	67	32.8	73	35.6

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
express	6	put into words	48	22.9	70	14.3	59	20.3	66	27.3	57	19.3		
expression	6	words used as a unit	77	14.3	94	27.7	62	29.0	77	35.1	68	39.7		
expression	6	a look	60	35.0	79	17.7	82	24.4	66	36.4	72	45.8		
expressive	6	having much meaning	69	27.5	76	26.9	64	28.1	77	36.4	52	46.2		
exquisite	6	lovely	69	21.7	91	27.5	83	27.7	69	21.7	61	26.2		
extend	6	make larger	41	26.8	57	14.0	70	17.1	71	26.8	51	37.3		
extension	6	addition	49	16.3	56	23.2	72	18.1	63	22.2	61	21.3		
extinguish	6	put out	71	21.1	87	19.5	72	13.9	80	17.5	56	48.2		
extra	F	more	66	15.2	73	21.9	69	23.2	70	30.6	66	54.5		
extract	6	draw out	78	17.9	82	26.8	82	22.0	85	32.9	61	19.7		
extraordinary	6	unusual	51	13.7	63	20.6	66	22.7	53	28.3	53	49.1		
eye	F	part of the body	66	30.3	73	54.8	66	71.2	86	81.4	71	83.1		
eyeball	4	the eye without the lid	60	25.0	67	28.4	79	40.5	81	56.8	62	56.5		
eyebrow	F	hair above the eye	69	34.8	76	43.4	64	59.4	77	74.0	52	82.7		
eyelash	4	hair on the eyelid	56	26.8	61	26.2	60	31.7	74	56.8	49	79.6		
eyesight	4	power to see	54	37.0	86	38.4	73	56.2	77	64.9	63	77.8		

WORD	DATE GRADE	DEFINITION	8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
fable	F	story	59	22.0	70	14.3	76	23.7	64	32.8	56	30.4
fabric	6	cloth	64	28.1	72	15.3	75	21.3	81	44.4	65	41.5
face	F	part of the head	66	37.9	73	47.9	69	73.9 ⁰⁰	70	88.6 ⁰⁰	66	92.4 ⁰⁰
fact	F	thing known to be true	64	21.9	72	23.6	80	47.5	76	53.9	50	70.0 ⁰⁰
fad	6	a fashion.	44	22.7	76	32.9	88	30.7	59	30.5	55	49.1
fade	6	lose color	79	22.8	75	20.0	76	28.9	83	20.5	53	37.7
fail	F	lose	79	27.8	75	30.7	76	42.1	83	47.0	53	71.7 ⁰⁰
failure	6	lack of success	70	28.6	63	30.2	76	42.1	70	22.9	58	41.4
faintness	6	weakness	78	20.5	73	30.1	81	46.9	81	46.9	71	64.2
fair	F	showing no favor	69	27.5	76	38.2	64	39.1	77	49.4	52	48.1
fairness	6	justness	52	40.4	75	24.0	85	31.8	64	21.9	52	48.1
fairy	F	tiny being	79	20.3	76	35.5	91	37.4	64	56.3	69	66.7 ⁰⁰
fairylard	4	place of charm	58	29.3	70	41.4	58	41.4	57	52.6	56	37.1
faith	F	trust	50	12.0	93	36.6	63	44.4	76	69.7 ⁰⁰	69	55.1
faithful	6	loyal	65	24.6	61	16.4	90	22.2	67	34.3	73	60.3
faithfulness	6	loyalty	65	13.8	77	11.7	76	27.6	75	42.7	68	39.7
fake	F	false	63	27.0	82	30.5	71	45.1	82	53.7	67	53.7
faker	6	pretender	67	20.4	83	18.1	76	36.8	84	39.3	58	58.6
fall	F	drop	49	22.4	69	58.0	65	61.5	79	70.9 ⁰⁰	49	75.3 ⁰⁰
false	F	not true	70	27.1	69	33.3	87	69.0 ⁰⁰	67	80.6 ⁰⁰	57	91.2 ⁰⁰
falsehood	6	a lie	70	22.9	80	31.3	58	32.8	74	41.9	67	46.3
fame	6	well-known	67	19.4	70	18.6	73	27.4	72	33.3	73	38.4
familiar	6	well-known	54	16.7	86	24.4	73	30.1	77	31.2	63	41.3
family	F	father, mother and their children	74	47.3	79	60.8	77	76.6 ⁰⁰	80	86.3 ⁰⁰	57	96.3 ⁰⁰
famous	6	well-known	56	30.4	61	31.1	60	36.7	74	59.5	49	73.3 ⁰⁰
fan	F	cause air to blow	75	40.0	88	61.4	77	72.7 ⁰⁰	74	73.0 ⁰⁰	72	80.6 ⁰⁰
fan	6	admirer	66	28.8	73	35.6	69	20.3	70	34.3	66	47.0

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
fang	6	tooth	68	23.5	74	10.8	76	17.1	70	24.3	69	26.1		
fantastic	6	odd	70	21.4	80	23.8	58	25.9	74	31.1	67	40.3		
far	F	a long way	68	44.1	80	60.0	65	75.4 ^a	65	66.3 ^a	71	83.3 ^a		
faraway	F	far	50	30.0	68	39.7	61	60.9 ^a	60	83.3 ^a	54	81.3 ^a		
fare	F	price of ticket	70	17.1	63	25.4	76	32.9	70	32.9	58	60.3		
farewell	6	good-bye	66	40.3	73	39.7	66	28.0	66	51.2	71	60.6		
farm	F	ranch	68	27.9	80	43.8	69	60.9	70	73.7 ^a	59	76.3 ^a		
farmer	F	man who raises crops or animals	76	37.2	73	63.0	61	60.2 ^a	61	76.3 ^a	71	83.3 ^a		
farmhouse	4	building	65	26.2	77	39.0	76	60.5	75	72.0 ^a	68	79.6 ^a		
farmstead	6	farm	65	35.4	61	41.0	90	30.9	67	40.3	73	39.7		
farther	F	more far	78	29.5	73	35.6	81	44.4	81	58.0	71	64.8		
farthest	6	most distant	73	23.3	71	14.1	73	27.4	72	41.7	67	36.7		
fascinate	6	charm	78	23.1	79	25.3	69	29.0	66	39.4	68	38.2		
fascination	6	strong attraction	79	19.0	76	19.7	91	39.6	64	34.4	69	34.8		
fashionable	6	stylish	65	15.4	89	32.6	69	33.3	71	34.9	66	37.6		
fast	F	quick	50	26.0	93	34.4	63	57.1	76	73.7 ^a	69	73.6 ^a		
fasten	F	tie	80	32.5	85	17.6	84	28.6	79	34.2	60	48.3		
fastening	6	clasp	50	30.0	93	26.9	63	36.5	76	40.8	69	44.9		
fat	F	heavy	70	34.3	88	46.6	62	62.9	79	79.7 ^a	66	69.6 ^a		
fatal	6	causing death	60	11.7	67	11.9	79	30.4	81	48.1	62	43.3		
father	F	parent	51	27.5	63	61.9	66	77.3 ^a	53	81.1 ^a	53	90.6 ^a		
fatherland	6	native country	56	23.2	61	26.2	60	35.0	74	36.8	49	43.3		
fatherly	6	like a father	56	30.4	77	40.3	79	64.6	76	73.7 ^a	47	60.9 ^a		
fatty	6	greasy	61	19.7	74	27.0	85	32.9	64	46.9	78	32.8		
faucet	6	tap	52	15.4	75	25.3	85	31.8	64	29.7	52	42.3		
fault	F	mistake	50	20.0	68	48.5	61	45.9	60	60.0	54	70.6 ^a		

WORD	DATE GRADE	DEFINITION
faultless	6	perfect
faulty	6	imperfect
favor	6	gift
favor	F	kind act
favorite	F	liked best
fawn	6	deer
fear	F	be afraid of
fearful	6	frightened
fearless	6	brave
feast	F	meal
feat	6	deed
feature	6	part of the face
feature	6	main item
February	F	month
federal	6	central government
fee	6	charge
feeble	6	weak
feebleness	6	weakness
feed	F	give food to
feel	F	touch
feeling	6	sense of touch
fellow	F	man
fellowship	6	friendliness
felt	6	cloth
female	4	woman or girl
fence	F	wall
fender	6	part of an automobile

-92-

8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
N	%	N	%	N	%	N	%	N	%
49	24.5	56	25.0	72	29.2	63	27.0	61	43.9
78	21.8	82	36.6	82	50.0	85	38.0	61	53.7
70	31.4	88	21.6	62	32.3	79	31.6	66	48.3
70	18.6	95	32.6	72	47.2	77	46.8	61	65.6
78	23.1	79	30.4	69	56.5	66	69.7*	68	80.9*
70	32.9	88	33.0	62	41.9	79	46.8	66	69.7*
58	31.0	86	43.0	76	35.5	78	59.0	58	82.0*
80	35.0	75	37.3	76	43.4	66	54.5	62	66.1
80	17.5	75	22.7	76	28.9	66	47.0	62	59.7
65	20.0	71	25.4	75	26.7	66	34.8	60	53.3
50	22.0	93	26.9	63	27.0	76	27.6	69	40.6
54	35.2	86	19.8	73	27.4	77	31.2	63	20.6
79	17.7	76	18.4	91	20.9	64	25.0	69	26.1
63	57.1	82	70.7*	71	87.3*	82	89.0*	67	97.0*
59	18.6	56	26.8	49	32.7	67	34.3	55	60.0
70	27.1	63	20.6	76	26.3	70	34.3	58	48.3
58	29.3	86	32.6	76	39.5	78	52.6	58	58.6
70	28.6	88	26.1	62	27.4	79	45.6	66	45.5
80	42.5	75	48.0	76	57.9	66	77.3*	62	72.6*
45	20.0	67	41.8	79	55.7	63	69.0*	53	81.1*
61	19.7	81	30.9	85	50.6	74	60.8	59	66.1
61	21.3	81	22.2	77	31.2	61	24.6	70	38.6
78	41.0	79	27.8	69	39.1	66	31.8	66	52.9
76	27.6	87	20.7	73	13.7	78	19.2	63	30.2
70	41.4	69	30.4	87	60.9	67	63.6*	57	87.7*
80	25.0	75	41.3	76	50.0	66	62.1	62	71.0*
66	12.1	90	20.4	66	22.7	60	25.0	64	33.7

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	Z	N	Z	N	Z	N	Z	N	Z		
fern	4	plant	79	25.3	76	19.7	91	24.2	64	45.3	69	39.1		
ferocious	6	fierce	71	29.6	98	36.7	79	45.6	65	38.5	64	42.2		
fertile	6	able to bear young	71	23.9	87	16.1	72	15.3	80	16.3	56	14.3		
fertilize	6	enrich	79	24.1	76	18.4	91	29.7	64	22.8	69	42.8		
fertilizer	6	plant food	61	29.5	81	21.0	85	29.4	74	48.6	59	45.8		
ferry	6	boat	79	27.8	76	30.3	91	31.9	64	48.4	69	44.9		
festival	4	celebration	71	31.0	87	33.3	72	40.3	80	58.8	56	37.1		
festive	6	merry	78	30.8	73	17.8	81	29.6	81	37.0	71	39.4		
festivity	6	party	69	23.2	91	33.0	83	30.1	69	37.7	61	49.2		
fetch	6	go and get	66	36.4	73	26.0	66	24.2	86	36.0	71	36.6		
feud	6	quarrel	78	17.9	79	30.4	69	34.8	66	28.8	68	39.7		
few	F	not many	66	33.3	73	43.8	66	62.1	86	81.4	71	84.3		
fib	F	lie	69	27.5	76	30.3	64	25.0	77	35.1	52	42.3		
fiction	6	something made up	69	30.4	76	34.2	64	25.0	77	50.6	52	39.6		
fiddler	6	musician	49	24.5	56	35.7	72	40.3	63	46.0	61	65.6		
fidget	6	move restlessly	69	29.0	76	32.9	64	34.4	77	36.4	52	40.4		
field	F	land	66	19.7	73	47.9	66	65.2	86	74.4	71	80.3		
fierce	6	wild	69	20.3	76	28.9	64	23.4	77	40.3	52	48.1		
fifteen	F	five more than 10	49	63.3	69	63.8	65	84.6	79	91.1	49	91.8		
fifth	F	next after fourth	79	31.6	76	56.6	91	78.0	64	87.5	69	88.4		
fifty	F	5 x 10	60	30.0	79	53.2	82	75.6	66	83.3	72	90.3		
fig	F	fruit	49	36.7	69	23.2	65	23.1	79	25.3	49	36.7		
fight	F	war against	66	40.9	73	50.7	66	63.6	86	84.9	71	84.3		
fighter	4	soldier	65	27.7	61	50.8	90	55.6	67	71.6	73	82.3		
figure	F	number	80	23.8	75	13.3	76	22.4	66	28.8	62	45.2		
figure	6	shape	67	16.4	83	28.9	76	28.9	84	41.7	58	44.8		
file	F	tool	70	20.0	95	28.4	72	22.2	77	28.6	61	24.6		

-93

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			M	X	M	X	M	X	M	X	M	X
file	6	set of papers	70	24.3	69	20.3	87	35.6	67	43.3	57	37.9
fill	P	put into	78	33.3	73	23.3	81	40.7	81	51.9	71	39.2
filter	6	strainer	80	26.3	85	29.4	84	36.9	79	39.2	60	43.3
filch	6	dirty	49	42.9	62	24.2	57	21.1	67	23.9	57	24.6
filthy	6	dirty	71	25.4	98	24.5	79	29.1	65	33.4	64	35.9
film	P	coating	59	27.1	86	24.4	61	23.0	88	23.9	63	23.3
fin	6	part of a fish's body	69	44.9	91	36.3	83	33.0	69	49.3	61	33.7
final	6	last	49	20.4	69	21.7	65	29.2	79	39.2	49	63.3
finally	P	at the end	66	30.3	73	20.5	69	29.0	70	40.6	66	66.7
finance	6	money matters	69	31.9	91	35.2	83	18.1	69	30.4	61	27.9
find	P	come upon	70	17.1	95	17.9	72	30.6	77	45.3	61	49.2
fine	P	very thin	60	40.0	79	26.6	82	22.0	66	13.6	72	16.7
fine	6	money paid as punishment	61	29.5	81	32.1	85	23.5	74	33.1	59	23.4
finger	P	part of the hand	69	33.3	91	45.1	83	77.1	69	73.9	61	83.2
finger nail	6	hard layer at the end of a finger	56	19.0	70	42.9	58	37.9	57	42.1	56	33.4
finish	P	bring to the end	84	25.0	80	31.3	66	54.5	89	74.2	62	77.4
finish	6	surface	45	15.6	68	39.7	79	40.5	57	64.9	51	49.0
flr	6	tree	74	48.6	79	36.7	77	37.7	80	38.8	57	31.6
fire	P	something burning	78	35.9	82	43.9	82	72.0	85	89.4	61	83.6
firearm	P	weapon	70	22.9	80	31.3	58	39.7	74	51.4	67	70.1
firefly	4	insect	66	19.7	73	47.9	66	45.5	86	48.8	71	60.0

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
firing	F	shooting	71	14.1	98	21.4	79	41.8	65	44.6	64	64.1
fireman	4	fire fighter	69	27.5	76	43.4	64	37.5	77	59.7	52	55.8
fireproof	4	will not burn	69	46.4	76	40.6	64	64.1	77	77.9*	52	76.9*
fireside	6	hearth	69	24.6	76	32.9	64	40.6	77	41.6	52	30.8
firewood	4	fuel	69	20.3	76	30.3	64	42.2	77	66.2	52	65.4
fireworks	F	things that make a loud noise	69	20.3	76	35.5	64	43.8	77	64.9	52	78.8*
firm	6	strong	70	22.9	88	20.5	62	29.0	79	40.5	66	33.3
firmness	6	steadiness	78	21.8	73	27.4	81	45.7	81	48.1	71	53.5
first	F	coming before others	79	36.7	76	40.8	91	46.2	64	57.8	69	65.2
fish	F	animal	78	33.3	73	52.1	81	79.0*	81	76.5*	71	84.5*
fishery	6	place for catching fish	79	40.5	75	44.0	76	55.3	83	61.4	53	83.0*
fist	F	closed hand	78	24.4	73	20.5	81	32.1	81	37.0	71	54.9
fit	F	be of the right size	69	30.4	76	44.7	64	45.3	77	62.3	52	71.2*
five	F	one more than 4	48	25.0	70	64.3	59	66.1	66	92.4*	57	87.7*
fix	F	repair	78	15.4	73	19.2	81	30.9	81	44.4	71	57.7
fixture	6	thing fastened in place	75	18.7	88	19.3	77	33.8	74	40.5	72	37.5
flabby	6	hanging loosely	75	28.0	88	26.1	77	27.3	74	39.2	72	51.4
flake	F	flat, thin piece	76	25.0	91	27.5	75	52.0	85	56.5	57	47.4
flaky	6	scaly	75	22.7	88	27.3	77	18.2	74	20.3	72	29.2
flame	F	light	64	23.4	76	30.3	70	50.0	78	39.7	60	61.7
flannel	6	material	75	26.7	88	30.7	77	20.8	74	44.6	72	40.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
flap	4	hanging piece	68	17.6	80	18.8	64	48.4	68	38.2	71	45.1
flap	F	swing	79	17.7	75	17.3	76	38.2	83	37.3	53	39.6
flare	6	flame up	78	35.9	73	38.4	81	59.3	81	50.6	71	50.7
flash	F	sudden light	51	29.4	63	55.6	66	71.2*	53	73.6*	53	86.8*
flashlight	F	electric light	70	25.7	69	47.8	87	71.3*	67	70.1*	57	87.7*
flat	F	level	60	33.3	83	39.8	75	53.3	79	63.3	60	61.7
flat	6	apartment	59	30.5	70	28.6	76	19.7	64	17.2	56	8.9
flatten	6	level	59	25.4	70	30.0	76	46.1	64	60.9	56	64.3
flatter	6	praise	78	26.9	79	16.5	69	29.0	66	28.8	68	44.1
flavor	6	taste	78	24.4	73	32.9	81	50.6	81	56.8	71	70.4*
flavoring	6	seasoning	54	31.5	86	38.4	73	43.8	77	46.8	63	50.8
flax]	6	plant	78	37.2	79	29.1	69	20.3	66	33.3	68	39.7
flea	F	insect	78	11.5	79	35.4	69	56.5	66	69.7*	68	72.1*
fleck	6	spot	71	15.5	98	23.5	79	36.7	65	38.5	64	35.9
flecked	6	spotted	68	27.9	80	23.8	64	28.1	68	35.3	71	32.4
flee	6	run away	68	29.4	80	27.5	64	35.9	68	33.8	71	26.8
fleece	6	wool	65	29.2	89	25.8	69	31.9	71	35.2	66	25.8
fleecy	6	woolly	70	30.0	63	31.7	76	35.5	70	27.1	58	32.8
fleet	6	ships sailing together	78	15.4	73	24.7	81	32.1	81	23.5	71	45.1
flesh	F	meat	79	25.3	75	32.0	76	32.9	83	25.3	53	35.8
flexible	6	easily bent	50	22.0	93	20.4	63	30.2	76	34.2	69	34.8
flicker	6	unsteady light	68	26.5	74	32.4	76	21.1	70	25.7	69	30.4
filter	6	pilot	68	20.6	80	28.8	65	47.7	65	50.8	71	67.6*
flight	F	flying	66	40.9	73	39.7	69	44.9	70	45.7	66	56.1
filmy	6	frail	56	12.5	61	24.6	60	21.7	74	32.4	49	30.6
fling	6	throw	50	28.0	93	21.5	63	33.3	76	31.6	69	27.5

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
flint	6	stone	70	20.0	88	19.3	62	29.0	79	44.3	66	45.5		
flip	F	toss	60	21.7	79	25.3	82	25.6	66	33.3	72	31.9		
flirt	6	play at love	80	27.5	85	35.3	84	40.5	79	48.1	60	68.3*		
float	F	stay on top	80	26.3	75	32.0	76	43.4	66	59.1	62	71.0*		
flock	F	group	63	31.7	82	23.2	71	32.4	82	37.8	67	47.8		
flood	F	flow over	49	44.9	62	53.2	57	56.1	67	76.1*	57	87.7*		
floor	F	ground	74	35.1	79	45.6	77	59.7	80	75.0*	57	78.9*		
flop	F	fall	70	26.6	88	25.0	62	41.9	79	41.8	66	47.0		
flop	6	failure	78	12.8	73	19.2	81	32.1	81	39.5	71	46.5		
floral	6	of flowers	78	37.2	73	23.3	81	33.3	81	35.8	71	49.3		
florist	6	person who sells flowers	61	23.0	81	34.6	77	35.1	61	57.4	70	67.1*		
floss	6	thread	79	22.8	75	18.7	76	31.6	83	25.3	53	22.6		
flounder	6	fish	66	28.8	73	31.5	69	20.3	70	17.1	66	22.7		
flounder	6	struggle	80	20.0	75	34.7	76	42.1	66	54.5	62	45.2		
flour	F	ground wheat	69	27.5	91	30.8	83	55.4	69	66.7*	61	77.0*		
flow	F	run	78	25.6	82	14.6	82	28.0	85	43.5	61	62.3		
flower	F	blossom	64	32.8	72	43.1	75	68.0*	81	72.8*	65	81.5*		
flowery	F	covered with blossoms	50	38.0	68	39.7	61	54.1	60	58.3	54	74.1*		
fluff	6	downy mass	69	10.1	76	27.6	64	25.0	77	29.9	52	19.2		
fluffy	6	soft and light	68	17.6	80	28.8	65	44.6	65	41.5	71	57.7		
fluid	6	liquid	61	18.0	74	45.9	85	34.1	64	62.5	78	65.4		
flush	6	flood	65	32.3	89	30.3	69	33.3	71	29.6	66	36.4		
flutter	F	wave	49	16.3	69	21.7	65	21.5	79	19.0	49	30.6		
fly	F	move through the air	67	44.8	83	47.0	76	69.7*	84	73.8*	58	89.7*		
foam	F	bubbles	60	21.7	57	22.8	66	40.9	64	45.3	53	64.2		
foe	6	enemy	70	24.3	69	23.2	87	31.0	67	46.3	57	54.4		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
fog	F	cloud	66	34.8	73	34.2	69	49.3	70	78.6*	66	86.4*
foggy	F	misty	50	18.0	68	30.9	61	50.0	60	39.3	54	70.4*
foil	6	metal in thin sheet	50	14.0	68	17.6	61	29.5	60	38.3	54	63.0
fold	F	bend	50	34.0	68	27.9	61	39.3	60	41.7	54	61.1
folder	6	holder	60	23.3	83	44.6	75	53.3	79	60.6	60	50.0
folklore	6	legends	61	24.6	81	22.2	85	29.4	74	35.1	59	32.2
folks	F	people	68	33.8	80	27.5	65	40.0	65	58.5	71	56.3
follow	F	go after	69	39.1	76	38.2	64	53.1	77	61.0	52	59.6
follower	6	disciple	70	25.7	80	16.3	58	15.5	74	41.9	67	50.7
following	F	next after	80	27.5	75	24.0	76	26.3	66	42.4	62	54.8
fond	F	loving	60	21.7	79	22.8	82	40.2	66	42.4	72	55.6
fondness	6	affection	80	27.5	85	34.1	84	36.9	79	48.1	60	58.3
food	F	anything that people eat	75	57.3	84	61.9	87	81.6*	69	94.2*	76	96.1*
fool	F	clown	79	39.2	76	40.8	91	49.5	64	56.3	69	68.1*
foolish	F	without sense	76	21.1	91	25.3	75	46.7	85	67.1*	57	63.2
foolishness	6	stupidity	61	27.9	81	25.9	77	49.4	61	65.6	70	84.3*
foot	F	part of the leg	58	50.0	86	58.1	76	71.1*	78	78.2*	58	93.1*
football	F	a game	68	42.6	74	67.6*	76	82.9*	70	88.6*	69	95.7*
foothill	6	low hill	66	25.8	73	38.4	69	39.1	70	48.6	66	57.6
footlights	6	lights in the front of the stage	58	36.2	70	37.1	58	62.1	57	52.6	56	66.1
footman	6	servant	56	21.4	61	16.4	60	11.7	74	29.7	49	36.7
footpath	6	trail	70	27.1	95	26.3	72	33.3	77	50.6	61	47.5
footprint	F	mark	49	32.7	62	29.0	57	38.6	67	46.3	57	56.1
footsteps	6	tread	64	17.2	72	9.7	75	21.3	81	25.9	65	33.8
footstool	6	low stool	68	33.8	71	33.8	74	55.4	67	56.7	63	65.1
footwear	4	shoes	68	41.2	74	52.7	76	69.7*	70	82.9*	69	88.4*
for	F	because of	59	27.1	70	34.3	76	44.7	64	51.6	56	55.4

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
forbid	6	not allow	68	30.9	71	26.8	74	20.3	67	31.3	63	47.6		
forbidden	6	not allowed	68	23.5	71	39.4	74	27.0	67	41.8	63	65.1		
force	6	power	49	28.6	62	19.4	57	26.3	67	37.3	57	59.6		
ford	6	cross a river	65	29.2	91	27.5	69	31.9	68	27.9	64	29.7		
forecast	6	tell what is coming	68	13.2	80	17.5	65	40.0	65	44.6	71	52.1		
forefather	6	ancestor	69	20.3	76	21.1	64	34.4	77	35.1	52	34.6		
foreign	6	outside one's country	78	26.9	73	21.9	81	27.2	81	37.0	71	46.5		
foreigner	6	person from another country	79	24.1	76	26.3	91	27.5	64	43.8	69	55.1		
forehead	F	part of the face	65	29.2	77	35.1	76	63.2	75	76.0*	68	63.2		
foreleg	6	front leg	78	37.2	73	49.3	81	54.3	81	63.0	71	64.8		
foreman	6	man in charge	68	38.2	80	26.3	69	40.6	70	40.0	59	32.2		
forenoon	4	time between early morning and noon	67	29.9	70	47.1	73	54.8	72	70.8*	73	60.3		
forepaw	4	front paw	45	44.4	68	30.9	79	54.4	57	66.7*	51	66.7*		
foresee	6	know beforehand	79	27.8	75	30.7	76	34.2	83	33.7	53	41.5		
foresight	6	thought for the future	59	27.1	56	23.2	49	26.5	67	29.9	55	32.7		
forest	F	woods	60	40.0	83	47.0	75	64.0	79	81.0*	60	73.3*		
forester	6	person in charge of a forest	67	34.3	70	34.3	73	32.9	72	54.2	73	49.3		
foretell	6	predict	54	3.7	86	19.8	73	28.8	77	27.3	63	42.9		
forever	6	always	65	23.1	61	39.3	90	42.2	67	40.3	73	65.8		
forewarn	6	caution	64	17.2	72	18.1	75	24.0	81	45.7	65	50.6		
forfeit	6	give up	80	37.5	85	16.5	84	20.2	79	20.3	60	28.3		
forge	6	sign falsely	73	23.3	71	26.8	73	26.0	72	26.4	67	40.3		
forget	F	fail to remember	60	33.3	67	40.3	79	60.8	81	69.1*	62	69.4*		
forgetful	4	having a poor memory	79	15.2	76	30.3	91	31.9	64	39.1	69	42.0		
forgetfulness	6	failure of memory	76	21.1	91	40.7	75	30.7	85	50.6	57	52.6		
forgive	F	pardon	41	14.6	57	22.8	70	37.1	71	42.3	51	51.0		
forgiveness	6	pardon	64	23.4	72	25.0	60	46.3	76	61.6	50	76.0*		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
fork	F	handle with long points	64	23.4	72	41.7	75	50.7	81	65.4	65	75.4*		
fork	6	crossroads	60	23.5	71	18.3	74	33.8	67	31.3	63	28.6		
form	F	shape	65	21.5	61	18.0	90	18.9	67	35.8	73	42.5		
formation	6	arrangement	64	15.6	72	29.2	75	30.7	81	22.2	65	32.3		
forsake	6	give up	56	19.6	77	18.2	79	29.1	76	28.9	47	44.7		
forsaken	6	deserted	58	13.8	70	24.3	58	24.1	57	24.6	56	35.7		
fort	F	strong building	69	33.3	91	40.7	83	53.0	69	58.0	61	59.0		
forth	F	forward	63	15.9	82	17.1	71	21.1	82	25.6	67	46.3		
fortress	6	shelter	60	20.0	57	28.1	66	21.2	64	23.4	53	32.1		
fortunate	6	lucky	60	25.0	70	17.1	79	25.3	82	34.1	38	42.1		
fortune	F	wealth	70	24.3	88	28.4	62	43.5	79	40.5	66	36.4		
fortune teller	6	one who tells future events	69	24.6	91	20.9	83	39.8	69	42.0	61	59.0		
forty	F	four x 10	48	43.8	70	55.7	59	66.1	66	75.8*	57	78.9*		
forward	F	ahead	79	11.4	76	21.1	91	29.7	64	46.9	69	69.6*		
fossil	6	remains	84	29.8	80	18.8	66	21.2	89	34.8	62	40.3		
foul	6	unfair play	50	40.0	93	35.5	63	34.9	76	50.0	69	39.1		
foundation	6	base	65	18.5	71	25.4	75	18.7	66	15.2	60	26.7		
founder	6	person who establishes	69	17.4	91	30.8	83	51.8	69	55.1	61	60.7		
fountain	F	water rising into the air	69	13.0	91	24.2	83	45.8	69	44.9	61	59.0		
four	F	one more than three	69	44.9	91	58.2	83	77.1*	69	92.8*	61	85.2*		
fourteen	F	four more than 10	69	42.0	91	46.4	83	79.5*	69	82.6*	61	88.5*		
fourth	F	next after 3rd	69	46.4	91	52.7	83	74.7*	69	84.1*	61	83.6*		
fowl	6	bird	68	33.8	71	29.6	74	35.1	67	34.3	63	33.3		
fox	F	animal	54	59.3	86	73.3*	73	82.2*	77	87.0*	63	90.5*		
foxy	6	sly	68	32.4	71	28.2	74	32.4	67	46.3	63	39.7		
fraction	6	part	75	16.0	84	16.7	87	26.4	69	42.0	76	51.3		
fracture	6	break	77	24.7	94	24.5	62	30.6	77	31.2	68	27.9		

-100-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
fragile	6	easily broken	69	30.4	76	28.9	64	34.4	77	41.6	52	55.8		
fragrance	6	smell	73	26.0	71	26.8	73	23.3	72	25.0	67	31.3		
frail	6	weak	84	27.4	80	26.3	66	31.8	89	27.0	62	32.3		
frame	F	form	58	36.2	70	35.7	58	27.6	57	24.6	56	46.4		
frank	6	honest	68	14.7	74	33.8	76	27.6	70	31.4	69	29.0		
frankfurter	6	sausage	70	15.7	95	18.9	72	31.9	77	37.7	61	41.0		
frantic	6	excited	68	33.8	71	31.0	74	29.7	67	26.9	63	41.3		
freckle	6	spot	68	25.0	71	28.2	74	35.1	67	41.8	63	50.8		
free	F	loose	78	37.2	73	23.3	81	37.0	81	42.0	71	45.1		
freedom	F	liberty	41	17.1	57	33.3	70	38.6	71	52.1	51	72.5*		
freeman	6	not a slave	70	25.7	95	25.3	72	34.7	77	45.5	61	55.7		
freeze	F	turn into ice	68	32.4	71	49.3	74	62.2	67	80.6*	63	90.5*		
freezer	6	refrigerator	68	32.4	80	46.3	69	66.7*	70	77.1*	59	79.7*		
freight	F	goods	71	39.4	87	23.0	72	27.8	80	23.8	56	44.6		
freighter	6	ship	70	22.9	88	21.6	62	30.6	79	35.4	66	54.5		
French	F	language	71	23.9	87	37.9	72	33.3	80	56.3	56	69.6*		
frequent	6	often	78	16.7	73	21.9	81	27.2	81	25.9	71	47.9		
fresh	F	new	49	14.3	69	17.4	65	30.8	79	45.6	49	67.3*		
freshman	6	student	68	22.1	80	21.3	65	44.6	65	52.3	71	76.1*		
freshness	6	fresh condition	49	22.4	62	37.1	57	43.9	67	59.7	57	77.2*		
fret	F	worry	49	28.6	62	29.0	57	26.3	67	28.4	57	42.1		
friar	6	monk	78	15.4	82	19.5	82	23.2	85	36.5	61	37.7		
Friday	F	day of the week	59	42.4	86	70.9*	61	85.2*	88	90.9*	63	90.5*		
friend	F	pal	70	34.3	95	31.6	72	50.0	77	70.1*	61	88.5*		
friendless	6	without friends	56	37.5	61	42.6	60	41.7	74	60.8	49	75.5*		
friendliness	6	friendly	69	33.3	91	29.7	83	44.6	69	59.4	61	59.0		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
friendly	F	loving	61	45.9	74	37.8	85	65.9	64	71.9*	78	80.8*
fright	6	fear	60	22.5	75	32.0	76	36.2	66	40.9	62	67.7*
frightful	6	alarming	70	31.4	69	29.0	87	37.9	67	50.7	57	49.1
frighten	F	make afraid	70	30.0	63	41.3	76	63.2	70	72.9*	58	87.9*
frill	6	ruffle	61	32.8	81	23.5	85	29.4	74	33.8	59	39.0
fringe	6	border	54	31.5	86	30.2	73	34.2	77	28.6	63	39.7
frisk	6	play	49	26.5	62	21.0	57	26.3	67	26.9	57	29.8
frisky	6	lively	60	23.3	70	25.7	79	32.9	82	24.4	38	34.2
frock	6	dress	69	20.3	91	22.0	83	16.9	69	11.6	61	14.8
frog	F	animal	79	44.3	76	60.5	91	85.7*	64	87.5*	69	97.1*
frollic	6	play	56	33.9	77	28.6	79	19.0	76	19.7	47	14.9
from	F	out of	49	42.9	69	40.6	65	35.4	79	48.1	49	67.3*
front	F	first	75	32.0	84	42.9	87	60.9	69	62.3	76	75.0*
frontier	6	incompletely developed region	76	18.4	87	37.9	73	37.0	78	39.7	63	31.7
frost	F	freeze	49	30.6	56	50.0	72	56.9	63	68.3*	61	80.3*
frosty	6	icy	41	34.1	57	45.6	70	55.7	71	73.2*	51	86.3*
frown	F	angry	70	25.7	63	34.9	76	32.9	70	45.7	58	60.3
frozen	6	turned into ice	76	30.3	87	41.4	73	60.3	78	76.9*	63	87.3*
fruit	F	part of a plant	74	29.7	79	39.2	77	61.0	80	76.3*	57	84.2*
fry	F	cook in fat	57	45.6	64	48.4	63	42.9	76	51.3	53	73.6*
fudge	F	candy	70	32.9	95	34.7	72	48.6	77	63.6	61	65.6
fuel	F	anything that can be burned	67	32.8	70	32.9	73	54.8	72	70.8*	73	63.0
fulfill	6	carry out	58	25.9	86	27.9	76	19.7	78	23.1	58	32.8
fulfillment	6	completion	79	24.1	75	32.0	76	44.7	83	45.8	53	54.7
full	F	can hold no more	68	26.5	74	48.6	76	68.4*	70	71.4*	69	63.8

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
fulness	6	being full	77	31.2	94	40.4	62	41.9	77	59.7	68	52.9		
fully	F	as a whole	75	26.7	86	29.5	77	41.6	74	55.4	72	66.7*		
fumble	6	drop	70	24.3	80	26.3	58	24.1	74	31.1	67	44.8		
fume	6	smoke	60	28.3	70	40.0	79	32.9	62	39.0	38	26.3		
fun	F	merry play	51	54.9	63	73.0*	66	83.3*	53	90.6*	53	92.5*		
fund	6	money	51	43.1	63	33.3	66	48.5	53	62.3	53	75.5*		
funeral	6	ceremonies done at burial	65	21.5	89	36.0	69	49.3	71	70.4*	66	74.2*		
funnel	6	cone	65	21.5	89	22.5	69	20.3	71	35.2	66	21.2		
fur	F	hair	65	36.9	89	49.4	69	68.1*	71	81.7*	66	89.4*		
furious	6	full of anger	60	21.7	70	28.6	79	40.5	82	40.2	38	47.4		
furnace	6	something to make a fire in	68	20.6	71	22.5	74	28.4	67	43.3	63	39.7		
furnish	6	supply	65	24.6	89	25.8	69	44.9	71	63.4	66	56.1		
furnishings	6	furniture	67	47.8	70	51.4	73	56.2	72	76.4*	73	67.1*		
furrow	6	wrinkle	67	35.8	83	34.9	76	23.7	84	28.6	58	46.6		
furry	6	covered with fur	67	14.9	83	32.5	76	40.8	84	57.1	58	63.8		
further	F	far-off	70	42.9	88	31.8	62	41.9	79	53.2	66	57.6		
furthest	6	most distant	68	26.5	74	31.1	76	26.3	70	34.3	69	37.7		
furthermore	6	also	67	25.4	83	18.1	76	17.1	84	23.8	58	17.2		
fury	6	anger	50	32.0	68	42.6	61	41.0	60	45.0	54	46.3		
fussy	6	busy with trifles	60	21.7	70	31.4	79	35.4	82	32.9	38	18.4		
future	6	time to come	50	28.0	68	27.9	61	36.1	60	56.7	54	74.1*		
fuzzy	F	curly	50	26.0	68	36.8	61	42.6	60	51.7	54	68.5*		
fuzzy	4	not clear	60	25.0	70	35.7	79	36.7	82	56.1	38	57.9		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
gadget	6	tool	60	20.0	83	28.9	75	17.3	79	20.3	60	16.7
gag	6	stop up the mouth	65	21.5	61	21.3	90	18.9	67	28.4	73	20.5
gag	6	joke	80	37.5	85	21.2	84	27.4	79	38.0	60	41.7
gaily	6	happily	74	33.8	79	30.4	77	26.0	80	28.8	57	31.1
gain	F	get	59	37.3	86	40.7	61	39.3	88	36.4	63	42.9
gale	6	wind	78	32.1	73	27.4	81	21.0	81	16.0	71	26.8
gallant	6	brave	65	29.2	89	24.7	69	26.1	71	33.8	66	28.8
gallery	6	balcony	59	32.2	56	26.8	49	46.9	67	49.3	55	52.7
galley	6	kitchen of a ship	68	35.3	80	16.3	69	15.9	70	21.4	59	30.5
galley	6	ship	71	23.9	98	19.4	79	19.0	65	24.6	64	34.4
gallon	F	a measure	50	32.0	93	36.6	63	58.7	76	72.4*	69	76.8*
gallop	F	ride at full speed	56	25.0	77	37.7	79	38.0	76	36.8	47	46.8
gallows	6	wooden frame for hanging	80	17.5	85	22.4	84	27.4	79	24.1	60	26.7
galoshes	4	overshoes	45	26.7	68	19.1	79	36.7	57	35.1	51	37.3
gamble	4	risk	75	25.3	88	25.0	77	31.2	74	24.3	72	37.5
gambler	6	player	65	18.5	91	23.1	69	24.6	68	42.6	64	53.1
game	F	sport	73	37.0	71	53.5	73	64.4	72	80.6*	67	91.0*
game	6	animals	58	29.3	86	32.6	76	30.3	78	26.9	58	24.1
gander	4	male goose	60	20.0	57	31.6	66	39.4	64	32.8	53	20.8
gang	F	group	60	40.0	57	36.8	66	40.9	64	54.7	53	64.2
gangplank	6	bridge	80	22.5	85	18.8	84	23.8	79	21.5	60	16.7
gangster	4	criminal	70	34.3	69	29.0	87	44.8	67	50.7	57	68.4*
gap	6	opening	64	21.9	72	23.6	75	16.0	81	28.4	65	26.2
garage	F	place for keeping automobiles	70	31.4	63	46.0	76	64.5	70	74.3*	58	77.6*
garbage	F	waste	76	22.4	87	33.3	73	38.4	78	53.8	63	63.5

WORD	DATE GROUP	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
garden	F	ground for growing flowers	60	40.0	70	62.9	79	79.7*	82	86.6*	38	78.9*
gardener	6	person hired to take care of a garden	66	36.4	73	49.3	69	50.7	70	71.4*	66	68.2*
gardenia	6	flower	59	25.4	70	34.3	76	47.4	64	64.1	56	64.3
gargle	4	wash the throat	45	22.2	68	25.0	79	22.8	57	31.6	51	27.5
garlic	6	a plant	70	30.0	80	37.5	58	31.0	74	36.5	67	49.3
garment	6	clothing	68	35.3	74	23.0	76	22.4	70	35.7	69	30.4
garter	6	strap to hold up a stocking	65	16.9	89	19.1	69	27.5	71	32.4	66	25.8
gas	F	gasoline	68	30.9	80	40.0	65	52.3	65	69.2*	71	77.5*
gash	6	cut	71	25.4	98	33.7	79	17.7	65	20.0	64	28.1
gasp	6	catch the breath	65	15.4	77	28.6	76	46.1	75	52.0	68	44.1
gate	F	door in a fence	59	42.4	70	55.7	76	63.2	64	84.4*	56	76.8*
gather	F	bring together	41	22.0	57	38.6	70	34.3	71	52.1	51	58.8
gathering	6	meeting	65	13.8	71	22.5	75	25.3	66	36.4	60	28.3
gay	F	happy	78	48.7	82	41.5	82	50.0	85	50.6	61	63.9
gayety	6	good humor	59	52.5	56	51.8	49	42.9	67	20.9	55	32.7
gaze	6	look steadily	57	26.3	64	23.4	63	19.0	76	26.3	53	34.0
gear	F	wheel having teeth	65	26.2	77	20.8	76	28.9	75	32.0	68	25.0
gem	6	jewel	70	21.4	69	39.1	87	43.7	67	37.3	57	43.9
general	F	taken as a whole	75	10.7	84	19.0	87	20.7	69	36.2	76	36.8
generally	6	in most cases	76	14.5	91	16.5	75	22.7	85	35.3	57	49.1
generate	6	produce	79	17.7	75	20.0	76	32.9	83	20.5	53	26.4
generation	6	people born in the same period	79	32.9	76	14.5	91	26.4	64	17.2	69	33.3
generosity	6	willingness to share	76	27.6	87	27.6	73	37.0	78	42.3	63	31.7
generous	6	unselfish	80	25.0	85	30.6	84	35.7	79	36.7	60	36.7
gentle	6	a spirit	70	25.7	69	31.9	87	41.4	67	31.3	57	43.9
gentle	F	kind	66	24.2	73	23.8	66	45.5	86	57.0	71	64.8

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
gentleman	F	polite term for any man	41	24.4	57	31.6	70	31.4	71	53.5	51	58.8
gentleness	6	kindliness	60	25.0	83	34.9	75	52.0	79	70.9*	60	66.7*
genuine	6	true	68	23.5	71	18.3	74	20.3	67	22.4	63	38.1
geography	F	study of the earth's surface	61	37.7	74	45.9	85	61.2	64	67.2*	78	88.5*
geographer	6	scientist	61	18.0	74	21.6	85	43.5	64	51.6	78	71.8*
geranium	6	plant	84	21.4	80	28.8	66	27.3	89	28.1	62	29.0
gesture	6	movement	77	19.5	94	24.5	62	32.3	77	40.3	68	30.9
get	F	receive	64	17.2	72	31.9	75	50.7	81	61.7	65	72.3*
ghost	6	spirit	49	24.5	62	29.0	57	36.8	67	46.3	57	75.4*
ghostly	6	weird	76	14.5	87	18.4	73	31.5	78	44.9	63	63.5
giant	F	great size	65	30.8	89	39.3	69	55.1	71	80.3*	66	68.2*
gift	F	present	50	22.0	68	48.5	61	63.9	60	80.0*	54	85.2
gigantic	6	huge	78	26.9	73	15.1	81	18.5	81	22.2	71	32.4
giggle	6	laugh	65	29.2	91	19.8	69	24.6	68	48.5	64	60.9
gin	6	a drink	61	32.8	81	22.2	77	23.4	61	27.9	70	44.3
gin	6	a machine	65	20.0	89	24.7	69	23.2	71	46.5	66	25.8
ginger	6	spice	68	29.4	80	30.0	64	32.8	68	42.6	71	53.5
gingham	6	cloth	68	14.7	80	27.5	69	14.5	70	30.0	59	33.9
gingerbread	F	cake	49	46.9	62	48.4	57	57.9	67	71.6*	57	82.5*
giraffe	4	animal	71	52.1	98	55.1	79	69.6*	65	78.5*	64	90.6*
girl	F	child	69	46.4	93	59.1	70	77.1*	80	91.3*	70	95.7*
girlhood	6	time of being a girl	70	32.9	80	35.0	58	32.8	74	55.4	67	49.3
girlish	6	like a girl	60	33.3	67	52.2	79	68.4*	81	76.5*	62	83.9*
give	F	hand over	61	24.6	74	50.0	85	61.2	64	68.8*	78	70.5*
giver	6	contributor	79	21.5	75	29.3	76	42.1	83	37.3	53	54.7
gizzard	4	belly	54	25.9	86	24.4	73	21.9	77	15.6	63	23.8

WORD	DALE GRADE	DEFINITION	8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
glacial	6	icy	79	32.9	75	37.3	76	26.3	83	26.5	53	37.7
glacier	6	mass of ice	60	18.3	79	29.1	82	29.3	66	47.0	72	61.1
glad	F	happy	70	32.9	80	57.5	58	60.3	74	79.7*	67	88.1*
gladden	6	fill with joy	75	18.7	84	35.7	87	39.1	69	47.8	76	55.3
gladness	6	joy	69	27.5	91	35.2	83	44.6	69	59.4	61	68.9*
glamorous	4	charming	79	26.6	75	29.3	76	32.9	83	28.9	53	43.4
glamour	6	charm	69	29.0	93	19.4	70	27.1	80	28.8	70	34.3
glance	F	quick look	77	37.7	94	24.5	62	32.3	77	37.7	68	42.6
gland	6	organ in the body	60	25.0	70	24.3	79	30.4	82	47.6	38	63.2
glare	6	strong light	52	34.6	75	32.0	85	37.6	64	32.8	52	42.3
glare	6	angry stare	70	24.3	69	30.4	87	28.7	67	49.3	57	42.1
glassware	6	tableware	68	25.0	80	35.0	64	32.8	68	32.4	71	33.8
glassy	6	smooth	50	22.0	93	28.0	63	30.2	76	48.7	69	46.4
glaze	6	coating	75	28.0	84	20.2	87	23.0	69	21.7	76	21.1
gleam	F	shine	69	23.2	93	14.0	70	32.9	80	35.0	70	42.9
glee	6	joy	78	25.6	82	28.0	82	31.7	85	29.4	61	45.9
gleeful	6	merry	58	24.1	86	29.1	76	25.0	78	29.5	58	41.4
glide	F	move smoothly	41	26.8	57	33.3	70	21.4	71	35.2	51	51.0
glider	6	airplane without a motor	58	27.6	70	27.1	58	17.2	57	36.8	56	50.0
glimmer	6	faint light	66	24.2	73	20.5	66	25.8	86	26.7	71	35.2
glimpse	6	short look	68	23.5	80	11.3	65	24.6	65	23.1	71	25.4
glisten	6	shine	68	16.2	80	21.3	69	18.8	70	22.9	59	22.0
glitter	6	shine	76	27.6	87	27.6	73	26.0	78	38.5	63	38.1
globe	4	anything round	84	27.4	80	35.0	66	39.4	89	62.9	62	67.7*
gloom	6	sadness	65	18.5	71	26.8	75	28.0	66	45.5	60	38.3
gloomy	6	dark	75	29.3	88	29.5	77	41.6	74	31.1	72	38.9

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
glorify	6	make splendid	68	11.8	74	17.6	76	18.4	70	22.9	69	36.2
glorious	6	splendid	49	12.2	56	26.8	72	29.2	63	42.9	61	54.1
glory	F	praise	68	25.0	71	32.4	74	35.1	67	61.2	63	65.1
gloss	6	shiny surface	54	14.8	86	30.2	73	37.0	77	32.5	63	49.2
glossy	6	shiny	49	14.3	56	17.9	72	23.6	63	31.7	61	47.5
glove	F	covering for the hand	45	42.2	68	61.8	79	63.3	57	93.0*	51	88.2*
glow	F	light	76	32.9	91	31.9	75	30.7	85	41.2	57	50.9
glowworm	6	firefly	49	24.5	62	29.0	57	31.6	67	31.3	57	47.4
glue	F	paste	60	38.3	57	54.4	66	68.2*	64	75.0*	53	88.7*
glum	6	dismal	67	16.4	83	31.3	76	32.9	84	28.6	58	44.8
gnat	6	insect	49	16.3	69	17.4	65	26.2	79	32.9	49	55.1
gnaw	6	bite at	78	12.8	82	18.3	82	17.1	85	31.8	61	31.1
gnome	6	dwarf	59	30.5	56	28.6	49	32.7	67	31.3	55	36.4
go	F	move away	49	34.7	69	56.5	65	75.4*	79	82.3*	49	89.8*
goal	F	end	84	20.2	80	16.3	66	25.8	89	28.1	62	43.5
gobble	F	eat fast	66	25.8	73	32.9	69	30.4	70	45.7	66	40.9
goat	F	animal	80	46.3	75	56.0	76	71.1*	66	83.3*	62	95.2*
gobbler	6	turkey	66	25.8	98	30.6	66	37.9	60	33.3	84	48.8
goblin	4	elf	69	27.5	93	21.5	70	21.4	80	16.3	70	22.9
gocart	6	wagon	70	27.1	69	24.6	87	35.6	67	46.3	57	40.4
godfather	6	man who takes vows for a child	65	26.2	71	32.4	75	30.7	66	39.4	60	48.3
godlike	6	heavenly	57	35.1	64	54.7	63	60.3	76	60.5	53	83.0*
godly	6	religious	60	11.7	67	19.4	79	24.1	81	43.2	62	35.5
godmother	F	mother who takes vows for a child	68	36.8	80	58.8	65	69.2*	65	76.9*	71	90.1*
golden	F	yellow	68	39.7	80	41.3	64	56.3	68	69.1*	71	71.8*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
goldenrod		plant	45	26.7	67	20.9	79	20.3	63	42.9	53	50.9
goldfinch	6	bird	84	39.3	80	33.8	66	43.9	89	41.6	62	54.8
goldfish	F	small fish	68	29.4	80	46.3	65	66.2	65	76.9*	71	80.3*
goldsmith	6	man who makes articles of gold	64	42.2	72	43.1	80	40.0	76	60.5	50	74.0*
golf	F	game	68	27.9	74	55.4	76	68.4*	70	85.7*	69	88.4*
gong	6	bell	69	47.6	76	42.1	64	39.1	77	40.3	52	42.3
good	F	behaving well	56	19.6	61	47.5	60	35.0	74	71.6*	49	83.7*
goodies	4	something to eat	54	44.4	86	41.9	73	35.6	77	44.2	63	41.3
goodness	F	kindly feeling	76	21.1	91	37.4	75	45.3	85	58.8	57	70.2*
goodwill	6	kindly feeling	76	26.3	91	39.6	75	46.7	85	58.8	57	66.7*
goose	F	bird	67	49.3	83	59.0	76	67.1*	84	77.4*	58	81.0*
goose	6	silly person	61	24.6	81	28.4	85	37.6	74	58.1	59	66.1*
gooseberry	F	sour berry	66	34.8	98	22.4	66	36.4	60	45.0	84	57.1
gopher	6	animal	68	26.5	80	31.3	69	26.1	70	41.4	59	44.1
gorge	6	valley	45	24.4	67	17.9	79	16.5	63	17.5	53	22.6
gorgeous	6	splendid	65	16.9	91	18.7	69	17.4	68	38.2	64	39.1
gorilla	6	ape	84	25.0	80	31.3	66	48.5	89	55.1	62	62.9
gosling	6	young goose	70	21.4	69	23.2	87	41.4	67	44.8	57	40.4
gospel	6	story of Christ's life	59	18.6	56	41.1	49	38.8	67	46.3	55	40.0
gossip	6	idle talk	60	20.0	70	24.3	79	26.6	82	48.8	38	52.6
gouge	6	dig out	54	31.5	86	27.9	73	28.8	77	27.3	63	41.3
gourd	6	fruit	69	39.1	93	31.2	70	14.3	80	18.8	70	10.0
govern	F	rule	68	19.1	71	15.5	74	27.0	67	44.8	63	52.4
government	F	ruling of a country	68	16.2	80	30.0	64	53.1	68	70.6*	71	80.3*
governor	4	head of a state	45	11.1	67	29.9	79	58.2	63	74.6*	53	73.6*

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
gown	F	dress	59	25.4	56	25.0	49	26.5	67	23.9	55	50.9		
grab	F	take away	59	28.8	86	26.7	61	42.6	88	52.3	63	65.1		
grace	6	beauty of form	49	26.5	69	26.1	65	27.7	79	35.4	49	57.1		
graceful	6	beautiful in form	60	26.7	79	30.4	82	35.4	66	40.9	72	34.7		
gracious	F	pleasant	80	27.5	85	32.9	84	35.7	79	49.4	60	65.0		
grade	6	slope	51	23.5	63	15.9	66	7.6	53	5.7	53	5.7		
grade	F	class	54	46.3	86	61.6	73	74.0*	77	81.8*	63	92.1*		
gradual	6	little by little	65	32.3	61	27.9	90	22.2	67	38.8	73	38.4		
graduate	6	finish school	69	40.6	93	32.3	70	58.6	80	82.5*	70	91.4*		
graduation	6	ceremony	76	28.9	91	24.2	75	29.3	85	49.4	57	49.1		
grammar	6	study of words	67	20.9	83	25.3	76	28.9	84	29.8	58	37.9		
grand	F	large	79	29.1	75	20.0	76	17.1	83	32.5	53	37.7		
grandchild	F	child of one's son or daughter	71	28.2	87	34.5	72	58.3	80	78.8*	56	85.7*		
granddaughter	F	daughter of one's son or daughter	44	36.4	76	36.8	88	50.0	59	57.6	55	58.2		
grandfather	F	father of one's father or mother	74	50.0	79	58.2	77	77.9*	80	83.8*	57	82.5*		
grandpa	F	grandfather	78	35.9	73	50.7	81	65.4	81	70.4*	71	77.5*		
grandparent	4	grandfather or grandmother	66	56.1	73	68.5*	66	81.6*	86	91.9*	71	93.0*		
grandson	F	son of one's son or daughter	67	19.4	83	33.7	76	44.7	84	47.6	58	58.6		
grandstand	F	seating place	60	21.7	79	30.4	82	30.5	66	43.9	72	38.9		
granite	6	rock	70	21.4	69	24.6	87	20.7	67	37.3	57	43.9		
grant	6	gift	78	32.1	73	30.1	81	32.1	81	23.5	71	32.4		
granulate	6	grind	66	18.2	73	23.3	66	28.8	86	44.2	71	43.7		
grape	F	fruit	76	39.5	87	57.5	73	76.1*	78	83.3*	63	96.8*		
grapefruit	F	fruit	50	38.0	93	49.5	63	81.0*	76	82.9*	69	84.1*		
grasp	6	hold fast	51	25.5	63	28.6	66	34.8	53	37.7	53	54.7		

-110-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
grass	F	plants	76	46.1	87	56.3	73	64.4	78	76.9*	63	90.5*		
grasshopper	F	insect	79	20.3	75	34.7	76	61.8	83	72.3*	53	81.1*		
grassy	4	green	48	45.8	70	51.4'	59	57.6	66	77.3*	57	77.2*		
grate	6	a grill	66	31.8	98	35.7	66	37.9	60	20.0	84	28.6		
grate	6	grind	77	36.4	94	35.1	62	32.3	77	27.3	68	25.0		
grateful	F	thankful	59	39.0	56	41.1	49	42.9	67	55.2	55	56.4		
gratitude	6	thankfulness	59	27.1	70	35.7	76	46.1	64	35.9	56	50.0		
grave	F	hole where a dead body is buried	48	20.8	70	38.6	59	44.1	66	65.2	57	63.2		
grave	6	serious	49	20.4	62	22.6	57	33.3	67	41.8	57	43.9		
gravel	F	stones	60	26.7	67	38.8	79	29.1	81	50.6	62	64.5		
gravitation	6	attraction between bodies	80	35.0	75	18.7	76	31.6	66	45.5	62	43.5		
gravity	6	natural force	65	24.6	91	35.2	69	49.3	68	63.2	64	71.9*		
gravy	F	food	54	44.4	86	41.9	73	49.3	77	54.5	63	74.6*		
gray	F	color	60	66.7*	70	74.3*	79	86.1*	82	92.7*	38	97.4*		
grayheaded	4	gray haired	45	22.2	67	40.3	79	49.4	63	68.3*	53	71.7*		
graze	F	feed on grass	74	32.4	79	26.6	77	37.7	80	45.0	57	64.9		
grease	F	fat	49	24.5	56	28.6	72	27.8	63	36.5	61	54.1		
great	F	big	60	33.3	70	42.9	79	54.4	82	59.8	38	65.8		
greatness	4	bigness	80	22.5	85	31.8	84	41.7	79	49.4	60	71.7*		
greed	6	wanting more than one's share	71	38.0	87	24.1	72	20.8	80	27.5	56	39.3		
Green	F	color	41	65.9	57	87.7*	70	90.0*	71	91.5*	51	98.0*		
greenhouse	6	building	76	36.8	91	51.6	75	72.0*	85	82.4*	57	82.5*		
greet	F	say "Hello"	60	13.3	67	23.9	79	40.5	81	49.4	62	58.1		
greeting	4	welcome	78	30.8	82	30.5	82	45.1	85	71.8*	61	70.5*		
greyhound	6	dog	64	29.7	72	36.1	80	46.3	76	61.8	50	72.0*		
griddle	6	plate	78	35.9	79	24.1	69	24.6	66	22.7	68	25.0		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
grief	6	sorrow	58	36.2	86	34.9	76	42.1	78	46.2	58	46.6
grieve	6	be sad	69	30.4	93	22.6	70	22.9	80	27.5	70	40.0
grime	6	dirt	54	22.2	86	25.6	73	23.3	77	28.6	63	28.6
grin	4	smile	73	28.8	71	22.5	73	24.7	72	37.5	67	32.6
grind	F	crush	78	26.9	82	30.5	82	31.7	85	40.0	61	34.4
grindstone	6	round stone	64	21.9	72	34.7	80	37.5	76	43.4	50	44.0
grip	6	firm hold	60	28.3	70	20.0	79	29.1	82	36.6	38	36.8
gripe	6	complain	68	25.0	74	24.3	76	47.4	70	35.7	69	49.3
grit	6	strike together	78	10.3	82	22.0	82	35.4	85	32.9	61	39.3
grizzly	4	bear	52	32.7	75	37.3	85	22.4	64	48.4	52	51.9
grocer	6	person who sells food	41	29.3	57	40.4	70	51.4	71	69.0*	51	70.6*
grocery	F	a store	45	37.8	68	44.1	79	64.6	57	70.2*	51	78.4*
groom	6	take care of horses	49	24.5	56	32.1	72	13.9	63	23.8	61	24.6
groom	6	make neat	68	35.3	80	18.8	64	28.1	68	35.3	71	39.4
groom	6	man to be married	60	28.3	57	35.1	66	37.9	64	43.8	53	56.6
groove	6	channel	68	17.6	71	32.4	74	32.4	67	29.9	63	28.6
grouch	6	sulky person	45	15.6	67	34.3	79	34.2	63	31.7	53	49.1
ground	F	earth	49	26.5	56	32.1	72	52.8	63	69.8*	61	78.7*
group	F	number of things together	61	18.0	74	37.8	85	45.9	64	67.2*	78	73.1*
grove	F	group of trees	68	23.5	71	25.4	74	35.1	67	38.8	63	36.5
grow	F	become bigger	69	27.5	91	44.0	83	66.3	69	81.2*	61	75.4*
growth	4	gain	68	32.4	74	27.0	76	44.7	70	42.9	69	46.3
grub	6	food	67	28.4	83	25.3	76	34.2	84	19.0	58	29.3
grudge	6	a dislike	74	25.7	79	20.3	77	26.0	80	21.3	57	35.1
gruesome	6	horrible	75	26.7	84	35.7	87	39.1	69	42.0	76	44.7
gruff	6	rough	75	16.0	84	27.4	87	24.1	69	27.5	76	32.9
grumble	6	complain	78	24.4	79	30.4	69	33.3	66	31.8	68	48.5

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
grumpy	6	in a bad temper	65	20.0	61	45.9	90	43.3	67	49.3	73	35.6
guarantee	6	promise	59	27.1	70	17.1	76	19.7	64	21.9	56	32.1
guard	F	watch over	73	21.9	71	29.6	73	39.7	72	51.4	67	71.6*
guardhouse	6	prison	68	22.1	71	38.0	74	41.9	67	50.7	63	57.1
guardian	6	person who takes care of another	80	32.5	75	28.0	76	39.5	66	54.5	62	64.5
guardianship	6	care	49	30.6	62	22.6	57	24.6	67	25.4	57	50.9
guess	F	suppose	68	32.4	80	30.0	64	45.3	68	60.3	71	66.2
guest	F	visitor	64	12.5	72	25.0	80	40.0	76	48.7	50	56.0
guidance	6	direction	64	29.7	72	19.4	80	41.3	76	40.8	50	58.0
guide	F	show the way	60	26.7	70	34.3	79	43.0	82	50.0	38	60.5
guilt	6	being to blame	68	26.5	71	22.5	74	20.3	67	29.9	63	36.5
guiltless	6	innocent	69	21.7	93	17.2	70	31.4	80	32.5	70	37.1
guilty	6	having done wrong	66	16.7	73	23.3	66	25.8	86	31.4	71	49.3
guitar	6	instrument	66	12.1	98	22.4	66	42.4	60	45.0	84	47.6
gulf	F	bay	69	33.3	93	22.6	70	51.4	80	66.3	70	80.0*
gulf	6	separation	76	14.5	91	26.4	75	29.3	85	34.1	57	33.3
gull	6	bird	70	21.4	80	30.0	56	24.1	74	44.6	67	47.8
gully	6	ditch	78	20.5	82	8.5	82	19.5	85	27.1	61	21.3
gulp	6	swallow	59	22.0	70	32.9	76	42.1	64	28.1	56	44.6
gun	F	weapon	49	24.5	69	29.0	65	32.3	79	55.7	49	61.2
gunner	6	soldier	51	35.3	63	50.8	66	59.1	53	77.4*	53	75.5*
gunpowder	F	powder that goes off with noise	61	23.0	81	35.8	85	48.2	74	58.1	59	72.9*
gush	6	pour out	65	20.0	71	28.2	75	34.7	66	39.4	60	30.0
gust	6	rush of wind	75	28.0	84	26.2	87	25.3	69	29.0	76	31.6
gut	6	belly	64	25.0	72	22.2	80	25.0	76	26.3	50	26.0
gutter	6	channel	66	40.9	98	32.7	66	18.2	60	23.3	84	44.0

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
guy	F	person	60	21.7	79	24.1	82	43.9	66	60.6	72	68.1*
gymnasium	6	room for sports	61	36.1	74	35.1	85	68.2*	64	75.0*	78	83.3*
gymnastics	6	sports	80	31.3	85	35.3	84	53.6	79	69.6*	60	81.7*
gyp	6	cheat	68	23.5	74	20.3	76	35.5	70	21.4	69	27.5
gypsy	6	a wanderer	69	15.9	76	26.3	64	35.9	77	48.1	52	51.9

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
habic	6	costume	79	17.7	76	15.8	91	6.6	64	17.2	69	15.9		
habic	4	one's way	61	21.3	74	29.7	85	21.2	64	26.6	78	41.0		
hack	6	cut	54	33.3	86	19.8	73	32.9	77	19.5	63	36.5		
hag	6	ugly woman	56	26.8	61	16.4	60	35.0	74	31.1	49	36.7		
hall	F	greet	51	21.6	63	31.7	66	43.9	53	39.6	53	39.6		
hall	4	frozen rain	69	29.0	91	33.0	83	56.6	69	59.4	61	68.9*		
hallstone	6	frozen drop of rain	69	14.5	93	25.8	70	51.4	80	60.0	70	72.9*		
hair	F	fur	59	40.7	56	44.6	49	75.5*	67	67.2*	55	74.5*		
hairdresser	6	barber	59	35.6	70	54.3	76	65.8*	64	71.9*	56	73.2*		
hairly	6	covered with hair	67	31.3	83	34.9	76	57.9	84	64.3	58	72.4*		
half	F	partly	60	20.0	67	28.4	79	50.6	81	56.8	62	71.0*		
halfway	4	in the middle	64	14.1	72	30.6	75	41.3	81	53.1	65	72.3*		
haltbut	6	fish	69	42.0	93	24.7	70	12.9	80	20.0	70	12.9		
hallway	4	passage	70	32.9	63	46.0	76	43.4	70	60.0	58	63.8		
halo	6	ring	74	17.6	79	17.7	77	26.0	80	32.5	57	35.1		
halt	F	stop	50	24.0	93	31.2	63	42.9	76	39.5	69	42.0		
halter	6	strap	78	20.5	79	29.1	69	33.3	66	36.4	68	47.1		
halve	6	divide into two	77	13.0	94	24.5	62	32.3	77	45.5	68	60.3		
ham	F	meat	65	47.7	77	61.0	76	73.7*	75	92.0*	68	91.2*		
hamburger	4	ground beef	63	30.2	82	47.6	71	71.8*	82	85.4*	67	95.5*		
hammer	F	tool	68	30.9	80	52.5	64	64.1	68	86.8*	71	85.9*		
hammock	6	hanging bed	76	31.6	91	26.4	75	48.0	85	36.5	57	45.6		
hamper	6	get in the way of	56	19.6	61	21.3	60	28.3	74	16.2	49	18.4		
hand	F	part of the arm	70	37.1	80	51.3	58	60.3	74	78.4*	67	86.6*		
hand	6	worker	41	41.5	57	38.6	70	38.6	71	45.1	51	56.9		
handbag	6	pocket book	64	23.4	72	38.9	80	61.3	76	72.4*	50	72.0*		
handbook	6	book of directions	68	42.6	80	27.5	64	40.6	68	48.5	71	53.5		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%	N	%
handcuff	6	chains	60	16.7	67	22.4	79	39.2	81	38.3	62	56.5		
handful	F	few	69	23.2	93	20.4	70	22.9	80	23.8	70	18.6		
handkerchief	F	cloth	68	26.5	80	41.3	69	47.8	70	65.7	59	71.2*		
handle	F	to touch	49	28.6	69	43.5	65	47.7	79	72.2*	49	75.5*		
handshake	4	greeting	45	42.2	68	23.5	79	29.1	57	45.6	51	49.0		
handsome	4	good-looking	59	35.6	86	53.5	61	67.2*	88	76.1*	63	87.3*		
handwriting	F	kind of writing	68	33.8	80	42.5	69	50.7	70	55.7	59	55.9		
handy	4	easy to use	45	15.6	68	27.9	79	32.9	57	52.6	51	56.9		
hang	F	fasten from above	54	16.7	86	25.6	73	31.5	77	37.7	63	47.6		
hangar	6	shed for airplanes	44	29.5	76	32.9	88	29.5	59	27.1	55	30.9		
hanging	6	death by a rope	59	25.4	86	30.2	61	44.3	88	53.4	63	65.1		
hangman	6	one who hangs persons	79	38.0	75	46.7	76	47.4	83	62.7	53	60.4		
hangover	6	remainder	64	39.1	72	40.3	80	33.8	76	34.2	50	44.0		
happen	F	take place	68	32.4	71	38.0	74	40.5	67	61.2	63	77.8*		
happening	6	event	65	23.1	77	18.2	76	23.7	75	53.3	68	58.8		
happily	F	gladly	61	23.0	74	35.1	85	54.1	64	73.4*	78	75.6*		
happiness	F	joy	76	27.6	87	31.0	73	42.5	78	62.8	63	65.1		
happy	F	gay	65	32.3	71	42.3	75	60.0	66	65.2	60	76.7*		
harbor	F	bay	65	23.1	91	31.9	69	40.6	68	55.9	64	60.9		
hard	F	not soft	49	32.7	56	39.3	72	56.9	63	84.1*	61	86.9*		
harden	6	make firm	66	18.2	73	21.9	66	18.2	86	33.7	71	42.3		
hardly	F	not quite	52	17.3	75	24.0	85	34.1	64	39.1	52	61.5		
hardness	6	firmness	68	16.2	80	22.5	64	40.6	68	41.2	71	47.9		
hardship	F	trouble	50	20.0	93	18.3	63	25.4	76	46.1	69	44.9		
hardware	F	tools	80	22.5	75	22.7	76	31.6	66	51.5	62	58.1		
hardy	6	strong	67	17.9	70	38.6	73	64.4	72	77.8*	73	72.6*		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
hare	F	rabbit	76	36.8	87	31.0	73	32.9	78	35.9	63	38.1		
hark	F	listen	73	15.1	71	15.5	73	24.7	72	27.8	67	29.9		
harm	F	hurt	68	39.7	80	50.0	64	51.6	68	52.9	71	54.9		
harmful	4	hurtful	50	24.0	68	29.4	61	54.1	60	66.7*	54	77.8*		
harmless	4	gentle	68	16.2	80	15.0	64	32.8	68	27.9	71	32.4		
harmonious	6	going well together	64	18.8	72	16.7	80	21.3	76	32.9	50	34.0		
harmonize	6	sound in tune	41	26.8	57	22.8	70	24.3	71	21.1	51	35.3		
harness	F	straps	73	27.4	71	28.2	73	35.6	72	37.5	67	43.3		
harpoon	6	spear	78	28.2	73	17.8	81	33.3	81	28.4	71	47.9		
harsh	6	rough	76	32.9	91	23.1	75	34.7	85	40.0	57	54.4		
harshness	6	roughness	49	24.5	62	35.5	57	21.1	67	40.3	57	54.4		
harvest	F	gather in	44	13.6	76	22.4	88	30.7	59	28.8	55	43.6		
harvester	6	machine	68	20.6	71	28.2	74	29.7	67	49.3	63	60.3		
hash	6	mixture of meat	70	21.4	69	18.8	87	27.6	67	29.9	57	57.9		
haste	F	hurry	48	37.5	70	28.6	59	33.9	66	39.4	57	45.6		
hasten	F	hurry	60	36.7	70	41.4	79	26.6	82	26.8	38	44.7		
hastily	6	quickly	68	35.3	80	21.3	64	39.1	68	42.6	71	39.4		
hasty	F	quick	50	18.0	93	26.9	63	11.1	76	18.4	69	37.7		
hat	F	a covering for the head	58	46.6	86	53.5	76	75.0*	78	78.2*	58	94.8*		
hatch	F	bring forth	76	25.0	87	19.5	73	23.3	78	21.8	63	30.2		
hatch	6	opening in a ship's deck	67	37.3	83	34.9	76	25.0	84	41.7	58	41.4		
hatchery	6	breeding place	68	10.3	71	23.9	74	16.2	67	19.4	63	33.3		
hatchet	F	ax	51	29.4	63	31.7	66	39.4	53	50.9	53	50.9		
hate	F	dislike	44	11.4	76	28.9	88	58.0	59	67.8*	55	78.2*		
hateful	6	nasty	64	21.9	72	31.9	75	38.7	81	63.0	65	61.5		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
hatred	6	dislike	58	19.0	70	24.3	58	29.3	57	28.1	56	46.4		
haughty	6	proud	54	22.2	86	22.1	73	24.7	77	35.1	63	44.4		
haul	F	pull	69	42.0	93	28.0	70	24.3	80	32.5	70	34.3		
haul	6	a catch	49	20.4	69	14.5	65	13.8	79	25.3	49	38.8		
haunches	6	hips	65	32.3	89	19.1	69	24.6	71	19.7	66	18.2		
haunted	6	visited by ghosts	65	23.1	71	28.2	75	33.3	66	43.9	60	48.3		
have	F	hold	76	31.6	87	37.9	73	35.6	78	55.1	63	65.1		
hawk	F	bird	79	32.9	75	29.3	76	55.3	83	62.7	53	77.4*		
hay	F	cut grass	49	18.4	56	51.8	72	62.5	63	77.8*	61	85.2*		
hayfield	F	pasture	65	20.0	91	23.1	69	36.2	68	64.7	64	62.5		
haystack	F	pile of hay	51	39.2	63	42.9	66	57.6	53	64.2	53	73.6*		
hazard	6	danger	66	10.6	98	24.5	66	31.8	60	26.7	84	46.4		
haze	6	smoke in the air	68	20.6	71	19.7	74	23.0	67	29.9	63	30.2		
hazel	6	tree	80	23.8	85	14.1	84	21.4	79	13.9	60	8.3		
hazy	6	smoky	54	25.9	86	32.6	73	35.6	77	23.4	63	47.6		
he	F	the male spoken about	65	23.1	89	23.6	69	34.8	71	77.5*	66	66.7*		
head	F	top part	60	38.3	79	31.6	82	57.3	66	77.3*	72	84.7*		
headache	F	pain in the head	64	21.9	72	43.1	80	61.3	76	76.3*	50	84.0*		
headress	6	covering	70	17.1	80	22.5	58	32.8	74	55.4	67	62.7		
heading	6	title	70	12.9	88	18.2	62	24.2	79	40.5	66	43.9		
headless	6	without a head	71	32.4	98	27.6	79	48.1	65	44.6	64	53.1		
headlight	6	light at front	45	40.0	67	46.3	79	62.0	63	68.3*	53	83.0*		
headquarters	4	place from which orders are sent out	49	22.4	62	24.2	57	24.6	67	34.3	57	49.1		
headstone	6	marker	80	31.3	85	16.5	84	21.4	79	20.3	60	23.3		
headstrong	6	stubborn	41	34.1	57	35.1	70	48.6	71	59.2	51	62.7		
headwater	6	upper parts of a river	71	25.4	87	34.5	72	45.8	80	70.0*	56	75.0*		

-118-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
headway	6	motion forward	65	21.5	91	28.6	69	36.2	68	39.7	64	46.9		
heal	F	make well	67	25.4	70	31.4	73	23.3	72	47.2	73	49.3		
health	F	not sick	65	24.6	61	41.0	90	56.7	67	62.7	73	74.0*		
healthful	6	good for one	48	29.2	70	35.7	59	23.7	66	40.9	57	45.6		
healthy	F	well	49	26.5	69	36.2	65	50.8	79	59.5	49	75.5*		
heap	F	pile	41	22.0	57	22.8	70	35.7	71	43.7	51	47.1		
hear	F	get sounds through the ears	58	31.0	70	44.3	58	69.0*	57	80.7*	56	91.1*		
hearer	6	listener	77	40.3	94	45.7	62	62.9	77	74.0*	68	79.4*		
hearing	F	power to hear	65	44.6	77	49.4	76	78.9*	75	80.0*	68	80.9*		
heart	F	part of the body	84	36.9	80	50.0	66	69.7*	89	79.8*	62	90.3*		
heartbreak	6	sorrow	60	25.0	79	17.7	82	28.0	66	33.3	72	61.1		
heartbroken	6	crushed by sorrow	60	28.3	70	32.9	79	40.5	82	46.3	38	63.2		
hearth	6	fireside	80	22.5	75	29.3	76	26.3	66	15.2	62	27.4		
heartless	6	cruel	79	22.8	76	30.3	91	22.0	64	43.8	69	37.7		
hearty	6	strong	45	20.0	68	41.2	79	44.3	57	49.1	51	33.3		
heater	F	stove	60	21.7	70	35.7	79	58.2	82	76.8*	38	68.4*		
heave	6	lift	51	17.6	63	15.9	66	43.9	53	37.7	53	43.4		
heaven	F	sky	65	33.8	61	49.2	90	61.1	67	65.7	73	82.2*		
heaviness	6	great weight	60	20.0	57	35.1	66	56.1	64	51.6	53	79.2 *		
heavy	F	hard to carry	45	35.6	68	48.5	79	62.0	57	87.7*	51	88.2*		
hedge	6	row of bushes	41	26.8	57	31.6	70	21.4	71	32.4	51	33.3		
heed	6	attention	49	14.3	56	19.6	72	22.2	63	28.6	61	23.0		
heedless	6	hasty	70	42.9	88	28.4	62	35.5	79	36.7	66	30.3		
heel	F	back part of a foot	60	26.7	83	32.5	75	48.0	79	69.6*	60	61.7		
height	F	how tall	65	24.6	91	27.5	69	40.6	68	66.2	64	76.6*		
heighten	6	make greater	60	20.0	79	19.0	82	24.4	66	30.3	72	37.5		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
heir	6	one who inherits	74	18.9	79	25.3	77	33.8	80	32.5	57	28.1		
helium	5	gas	76	23.7	87	23.0	73	21.9	78	37.2	63	31.7		
hell	F	place where wicked persons are punished after death	68	16.2	80	23.8	69	34.8	70	58.6	59	66.1		
hello	F	a greeting	68	22.1	80	16.3	64	40.6	68	58.8	71	66.2		
helm	6	steering gear	84	23.8	80	21.3	66	22.7	89	13.5	62	33.9		
helmet	F	covering	80	22.5	75	21.3	76	23.7	66	31.8	62	53.2		
helmsman	6	man who steers a ship	71	26.8	87	26.4	72	29.2	80	45.0	56	55.4		
help	F	aid	70	24.3	69	26.1	87	47.1	67	59.7	57	78.9*		
help	6	servant	68	30.9	80	21.3	65	33.8	65	49.2	71	60.6		
helper	F	aid	59	13.6	86	20.9	61	21.3	88	38.6	63	38.1		
helpful	F	useful	65	23.1	91	35.2	69	43.5	68	39.7	64	39.4		
helpless	6	dependent	70	37.1	88	20.5	62	27.4	79	30.4	66	45.5		
hem	F	edge	57	31.6	64	26.6	63	36.5	76	39.5	53	54.7		
hemisphere	6	half a globe	68	25.0	80	32.5	65	49.2	65	60.0	71	69.0*		
hemoglobin	6	blood serum	59	28.8	56	28.6	49	42.9	67	20.9	55	21.8		
hen	F	bird	63	55.6	82	62.2	71	70.4*	82	74.4*	67	85.1*		
henhouse	F	chicken house	44	40.9	76	57.9	88	77.3*	59	72.9*	55	87.3*		
her	F	the woman spoken about	56	30.4	77	51.9	79	70.9*	76	82.9*	47	80.9*		
herb	6	plant	68	13.2	80	20.0	64	18.8	68	13.2	71	22.5		
herd	F	group	79	19.0	75	29.3	76	39.5	83	41.0	53	60.4		
here	F	in this place	48	18.8	70	47.1	59	52.5	66	77.3*	57	77.2*		
hereabout	6	near here	57	24.6	64	31.3	63	44.4	76	52.6	53	69.8*		
hereafter	6	in the future	78	24.4	79	31.6	69	42.0	66	43.9	68	55.9		
herewith	6	by means of	45	28.9	68	20.6	79	15.2	57	22.8	51	31.4		

-120-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
hero	F	brave man	66	31.8	98	31.6	66	45.5	60	65.0	84	73.8*		
heroic	6	brave	53	20.7	86	25.6	76	22.4	78	38.5	58	56.9		
heroine	6	brave girl	69	26.1	93	29.0	70	32.9	80	41.3	70	58.6		
heroism	6	brave act	64	42.2	76	40.8	70	48.6	78	42.3	60	56.7		
herring	6	fish	78	24.4	79	19.0	69	18.8	66	16.7	68	19.1		
hers	F	belonging to her	60	28.3	79	38.0	82	63.4	66	80.3*	72	77.8*		
hesitant	6	uncertain	64	23.4	76	28.9	70	22.9	78	28.2	60	33.3		
hesitate	6	pause	66	14.7	80	21.3	64	26.6	68	20.6	71	31.0		
hesitation	6	doubt	61	29.5	81	13.6	77	11.7	61	13.1	70	20.0		
hibernate	6	spend the winter in sleep	66	12.1	73	27.4	66	28.8	86	36.0	71	45.1		
hiccup	6	catching of the breath	49	14.3	69	17.4	65	21.5	79	39.2	49	40.8		
hickory	F	tree	60	26.7	83	21.7	75	22.7	79	36.7	60	36.7		
hidden	F	out of sight	76	18.4	91	26.4	75	29.3	85	32.9	57	28.1		
hide	F	put out of sight	65	20.0	71	23.9	75	36.0	66	45.5	60	61.7		
hideous	6	ugly	44	9.1	76	19.7	88	27.3	59	20.3	55	21.8		
high	F	tall	65	38.5	61	59.0	90	60.0	67	77.6*	73	83.6*		
highland	6	hilly country	60	21.7	79	39.2	82	57.3	66	72.7*	72	77.8*		
highroad	6	street	56	28.6	61	57.4	60	61.7	74	78.4*	49	85.7*		
highway	F	road	60	41.7	67	44.8	79	72.2*	81	76.5*	62	87.1*		
hike	4,6	take a long walk	61	34.4	81	37.0	77	48.1	61	50.8	70	75.7*		
hilarious	6	highly amusing	60	43.3	79	26.6	82	51.2	66	47.0	72	44.4		
hill	F	raised earth	58	24.1	70	44.3	58	56.9	57	57.9	56	73.2*		
hilltop	F	peak	60	21.7	70	27.1	79	34.2	82	40.2	38	42.1		
hilly	F	having many hills	54	27.8	86	36.0	73	53.4	77	46.8	63	68.3*		
him	F	the male spoken about	64	20.3	72	26.4	75	44.0	81	63.0	65	72.3*		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
hind	F	rear	63	28.6	82	29.3	71	29.6	82	42.7	67	56.7
hindquarters	6	back	70	35.7	88	23.9	62	14.5	79	22.8	66	28.8
hinge	6	joint	66	25.8	73	32.9	69	39.1	70	40.0	66	43.9
hint	F	trace	59	37.3	56	30.4	49	53.1	67	49.3	55	49.1
hip	F	part of the body	70	25.7	63	38.1	76	50.0	70	60.0	58	82.8*
hippopotamus	4	animal	56	42.9	77	49.4	79	60.8	76	71.1*	47	68.1*
hire	F	pay for the use of	68	25.0	80	16.3	64	42.2	68	48.5	71	33.8
his	F	belonging to him	75	32.0	88	48.9	77	64.9	74	64.9	72	72.2*
history	F	record of the past	76	22.4	91	14.3	75	33.3	85	49.4	57	61.4
historian	6	person who writes about history	49	16.3	56	26.8	72	45.8	63	63.5	61	72.1*
hit	6	successful performance	70	25.7	80	31.3	58	31.0	74	41.9	67	35.8
hit	F	smack	49	28.6	69	29.0	65	36.9	79	54.4	49	61.2
hitch	F	fasten	68	32.4	74	28.4	76	32.9	70	32.9	69	34.8
hitchhike	6	travel by getting free rides	69	30.4	76	28.9	64	42.2	77	57.1	52	59.6
hither	6	to this place	78	16.7	79	27.8	69	15.9	66	25.8	68	19.1
hive	F	house for bees	60	25.0	67	31.3	79	43.0	81	55.6	62	66.1
hives	6	rash	70	30.0	88	35.2	62	27.4	79	22.8	66	33.3
hoarse	6	sounding rough and deep	56	21.4	77	20.8	79	29.1	76	35.5	47	46.8
hobble	4	limp	41	29.3	57	22.8	70	10.0	71	22.5	51	25.5
hobby	4	something a person likes to work at	71	29.6	98	31.6	79	43.0	65	55.4	64	78.1*
hobbyhorse	4	plaything	84	35.7	80	43.8	66	28.8	89	53.9	62	54.8
hobo	6	cramp	49	22.4	69	29.0	65	16.9	79	26.6	49	32.7
hockey	4	game	61	27.9	81	40.7	85	50.6	74	62.2	59	71.2*
hoe	4	tool	66	34.8	73	21.9	69	36.2	70	47.1	66	54.5
hog	F	pig	45	37.8	68	42.6	79	55.7	57	66.7*	51	94.1*
hoist	6	lift	65	10.8	71	12.7	75	9.3	66	19.7	60	15.0

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
hold	F	have	68	38.2	80	23.8	64	39.1	68	44.1	71	57.7
holder	F	owner	58	25.9	70	22.9	58	32.8	57	35.1	56	48.2
holdup	4	robbery	65	32.3	77	22.1	76	25.0	75	36.0	68	30.9
hole	F	opening	76	27.6	87	49.4	73	45.2	78	67.9*	63	73.0*
holiday	F	day when one does not work	59	32.2	86	30.2	61	52.5	88	70.5*	63	68.3*
holiness	6	being	65	30.8	91	31.9	69	34.8	68	38.2	64	46.9
hollow	F	empty	68	19.1	71	23.9	74	27.0	67	50.7	63	44.4
holly	6	tree	68	42.6	80	32.5	64	2.2	68	41.2	71	31.0
hollyhock	6	plant	60	15.0	57	24.6	66	24.2	64	21.9	53	37.7
holster	4	case	74	31.1	79	38.0	77	13.0	80	13.8	57	15.8
home	F	place where a person lives	69	36.2	93	59.1	70	74.3*	80	86.3*	70	92.9*
homeless	4	without a home	56	14.3	77	35.1	79	40.5	76	56.6	47	68.1*
homelike	6	friendly	75	44.0	88	48.9	77	54.5	74	71.6*	72	63.9
homely	F	ugly	56	42.9	61	26.2	60	21.7	74	29.7	49	14.3
homemaker	4	housewife	56	30.4	77	32.5	79	54.4	76	73.7*	47	76.6*
homesick	F	unhappy	60	41.7	83	38.6	75	62.7	79	84.8*	60	83.3*
homestead	6	house	64	34.4	76	35.5	70	32.9	78	39.7	60	36.7
homespun	6	plain	67	22.4	83	28.9	76	30.3	84	28.6	58	48.3
homicide	6	murder	60	30.0	57	28.1	66	30.3	64	43.8	53	50.9
honest	F	true	58	25.9	86	40.7	76	46.1	78	60.3	58	70.7*
honesty	6	truth	67	41.8	70	31.4	73	47.9	72	70.8*	73	74.0*
honeycomb	6	wax	60	28.3	67	40.3	79	35.4	81	50.6	62	53.2
honeymoon	F	holiday	79	22.8	75	40.0	76	26.3	83	34.9	53	32.1
honeysuckle	6	shrub	49	12.2	56	26.8	72	26.4	63	25.4	61	39.3
honor	F	glory	60	41.7	79	40.5	82	40.2	66	48.5	72	37.5
hood	F	covering for the head	60	16.7	70	27.1	79	26.6	82	41.5	38	39.5

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17		N	%
			N	%	N	%	N	%	N	%	N	%		
hood	4	covering of an automobile	49	22.4	56	19.6	72	31.9	63	38.1	61	39.3		
hoodlum	6	gangster	64	23.4	72	26.4	75	41.3	81	55.6	65	53.8		
hoof	F	foot	75	40.0	84	26.2	87	31.0	69	27.5	76	34.2		
hook	F	piece of metal	66	27.3	98	26.5	66	54.5	60	48.3	84	67.9*		
hooky	6	absence without leave	70	14.3	63	20.6	76	21.1	70	24.3	58	34.5		
hoop	F	ring	71	33.8	87	20.7	72	38.9	80	30.0	56	39.3		
hoopskirt	6	petticoat	66	16.7	98	33.7	66	50.0	60	68.3*	84	69.0*		
hoot	6	shout at	84	27.4	80	36.3	66	45.5	89	43.8	62	46.8		
hop	F	jump	60	55.0	67	70.1*	79	78.5*	81	81.5*	62	82.3*		
hope	F	wish	61	34.4	81	40.7	85	51.8	74	73.0*	59	79.7*		
hopeful	F	expecting to receive what one wants	59	18.6	70	25.7	76	35.5	64	57.8	56	57.1		
hopeless	4	feeling no hope	45	11.1	67	29.9	79	45.6	63	49.2	53	79.2*		
horizon	6	line where earth and sky meet	61	24.6	81	18.5	77	24.7	61	29.5	70	54.3		
horizontal	6	level	64	18.8	72	19.4	80	13.8	76	30.3	50	42.0		
horned	6	pointed	49	12.2	62	30.6	57	43.9	67	28.4	57	43.9		
hornet	6	insect	68	16.2	74	20.3	76	43.4	70	50.0	69	43.5		
horrible	4	terrible	76	25.0	91	28.6	75	42.7	85	57.6	57	50.9		
horrid	6	unpleasant	79	17.7	76	13.2	91	23.1	54	35.9	69	40.6		
horrify	6	scare	44	18.2	76	15.8	88	33.0	59	28.8	55	40.0		
horror	6	terror	58	34.5	86	37.2	76	39.5	78	61.5	58	67.2*		
horse	F	animal	78	38.5	73	65.8	81	80.2*	81	79.0*	71	85.9*		
horsefly	4	insect	64	15.6	72	26.4	80	55.0	76	53.9	50	56.0		
horsehair	4	fur	61	42.6	74	32.4	85	56.5	64	62.5	78	67.9*		
horseman	4	rider	49	32.7	62	53.2	57	52.6	67	71.6*	57	84.2*		
horsepower	6	energy	44	9.1	76	11.8	88	25.0	59	37.3	55	56.4		
horseshoe	F	plate nailed to a hoof	49	42.9	62	59.7	57	47.4	67	67.2*	57	77.2*		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
hose	F	pipe	50	22.8	68	30.9	61	42.6	60	61.7	54	66.7*
hosier	6	stockings	80	20.0	75	20.0	76	34.2	66	31.8	62	37.1
hospitable	6	giving friendly treatment	54	40.7	86	44.2	73	58.9	77	49.4	63	60.3
hospital	F	place for the sick	65	55.4	91	81.3*	69	78.3*	68	91.2*	64	92.2*
hospitality	6	friendliness	69	33.3	93	40.9	70	44.3	80	31.3	70	51.4
host	6	large number	65	21.5	91	14.3	69	18.8	68	14.7	64	23.4
host	6	entertainer	57	31.6	64	18.8	63	39.7	76	44.7	53	43.4
hostage	4	person held by an enemy	65	26.2	89	23.6	69	34.8	71	30.0	66	31.8
hostess	6	woman who receives another as her guest	68	33.8	74	44.6	76	43.4	70	41.4	69	46.4
hostile	6	unfriendly	54	33.3	86	33.7	73	31.5	77	39.0	63	38.1
hostility	6	dislike	64	18.8	72	16.7	75	29.3	81	25.9	65	52.3
hot	F	warm	80	61.3	75	66.7*	76	80.3*	66	84.8*	62	95.2*
hotel	F	inn	51	19.6	63	36.5	66	54.5	53	67.9*	53	77.4*
hound	F	dog	61	31.1	74	43.2	85	36.5	64	50.0	78	56.4
hour	F	fixed time	49	24.5	69	52.2	65	61.5	79	79.7*	49	81.6*
hourly	6	every hour	68	26.5	80	28.8	69	52.2	70	70.0*	59	66.1
house	F	home	61	59.0	81	74.1*	77	74.0*	61	90.2*	70	97.1*
household	6	family	65	35.4	77	45.5	76	56.6	75	77.3*	68	67.6*
housekeeper	4	housewife	68	39.7	74	51.4	76	61.8	70	72.9*	69	81.2*
housekeeping	4	housework	79	31.6	75	45.3	76	65.8	83	79.5*	53	84.9*
housemaid	4	hired girl	67	28.4	70	30.0	73	39.7	72	55.6	73	56.2
housetop	F	roof	66	27.3	98	36.7	66	69.7*	60	71.7*	84	79.8*
housewife	F	family manager	61	36.1	74	40.5	85	56.5	64	76.6*	78	83.3*
housing	6	sheltering	65	30.8	61	36.1	90	45.6	67	56.7	73	56.2
how	F	in what way	64	34.4	72	33.3	75	40.0	81	58.0	65	69.2*
however	F	yet	66	28.8	73	32.9	69	31.9	70	48.6	66	54.5
howl	F	cry	68	23.5	80	27.5	69	24.6	70	40.0	59	49.2

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17		N	Z
			N	Z	N	Z	N	Z	N	Z	N	Z		
beeb	6	central part	60	16.7	83	21.7	75	24.0	79	35.4	60	26.7		
hubbub	6	uproar	71	16.9	87	24.1	72	20.8	80	28.8	56	30.4		
buddle	6	crowd close	49	30.6	56	28.6	72	13.9	63	23.8	61	37.7		
bug	7	bold close	56	30.4	61	39.3	60	38.3	74	56.8	49	67.3*		
bug	7	large	56	25.0	61	37.7	60	35.0	74	55.4	49	61.2		
hugo	7	old ship	70	24.3	69	21.7	87	21.8	67	31.3	57	21.1		
hulk	6	body of a ship	64	28.1	72	25.0	80	32.5	76	31.6	50	26.0		
hull	4	low noise	60	35.0	67	35.8	79	29.1	81	38.3	62	53.2		
hum	7	of persons	45	17.8	68	30.9	79	45.6	57	66.7*	51	76.5*		
human	4	poor	77	28.6	94	23.4	62	22.6	77	36.4	68	25.0		
humble	7	moist	75	24.0	84	13.1	87	28.7	69	44.9	76	48.7		
humid	6	moisture	59	23.7	86	33.7	61	45.9	88	47.7	63	57.1		
humidity	6	lower the pride of	79	21.5	75	24.0	76	25.0	83	24.1	53	30.2		
humiliate	6	small bird	65	27.7	91	46.2	69	53.6	68	75.0*	64	75.0*		
hummingbird	4	etc	56	16.1	61	26.2	60	25.0	74	40.5	49	42.9		
humor	6													
humorous	6	funny	69	30.4	76	23.7	64	26.6	77	29.9	52	34.6		
hump	7	lump	49	30.6	56	30.4	72	40.3	63	36.5	61	45.9		
hunch	6	feeling	61	13.1	81	12.3	85	10.6	74	17.6	59	18.6		
hunchback	6	person with a hump on his back	70	25.7	80	38.8	58	34.5	74	52.7	67	53.7		
hundred	7	ten times ten	60	31.7	57	47.4	66	77.3*	64	81.3*	53	92.5*		
hunger	7	desire for food	68	27.9	80	26.3	65	35.4	65	50.8	71	52.1		
hungrily	6	in a hungry manner	70	28.6	69	42.0	87	47.1	67	46.3	57	45.6		
hungry	7	feeling a desire for food	65	29.2	77	40.3	76	71.1*	75	81.3*	68	86.8*		
hunk	7	lump	80	47.5	85	45.9	84	45.2	79	40.5	60	50.0		
hunt	7	chase	80	23.8	85	34.1	84	40.5	79	44.3	60	56.7		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17		N	Z
			N	Z	N	Z	N	Z	N	Z	N	Z		
hunter	7	person who hunts	66	24.2	73	50.7	66	54.5	86	73.3*	71	77.5*		
hunterman	4	sportsman	60	25.0	83	48.2	75	52.0	79	79.7*	60	70.0*		
hurl	6	throw	67	29.9	70	27.1	73	16.4	72	44.4	73	24.7		
hurricane	6	storm	75	26.7	88	25.0	77	48.1	74	56.8	72	68.1*		
hurried	7	rushed	79	20.3	75	26.7	76	53.9	83	54.2	53	67.9*		
hurriedly	4	quickly	66	24.2	73	46.6	66	59.1	86	64.4*	71	71.8*		
hurry	7	move quickly	56	26.8	77	37.7	79	58.2	76	88.4*	47	89.4*		
hurt	7	harm	49	38.8	62	41.9	57	49.1	67	59.7	57	75.4*		
husband	7	married man	61	39.3	81	49.4	77	62.3	61	80.3*	70	85.7*		
hush	7	make quiet	80	31.3	85	32.9	84	32.1	79	35.4	60	45.0		
husk	6	covering	59	27.1	86	12.8	61	18.0	88	22.7	63	30.2		
husky	6	big and strong	60	23.3	79	25.3	82	45.1	66	48.5	72	47.2		
hustle	6	hurry	60	36.7	63	37.3	75	30.7	79	40.5	60	30.0		
hut	7	cabin	80	25.0	75	25.3	76	34.2	66	40.9	62	51.6		
hyacinth	6	plant	66	18.2	73	26.0	69	21.7	70	18.6	66	10.6		
hydrant	6	water outlet	65	26.2	91	23.1	69	30.4	68	22.1	64	31.3		
hygiene	6	rules of health	71	23.9	98	26.5	79	34.2	65	43.1	64	39.1		
hymn	7	song	73	24.7	71	36.6	73	34.2	72	36.1	67	50.7		
hymnal	6	book	70	14.3	80	21.3	58	27.6	74	29.7	67	41.8		
hypnotise	6	put into a state like sleep	59	28.8	56	26.8	49	14.3	67	16.4	55	23.6		
hypodermic	6	injection	68	39.7	80	38.8	64	46.9	68	42.6	71	50.7		
hysterical	6	excited	67	31.3	70	22.9	73	34.2	72	31.9	73	35.6		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	Z	N	Z	N	Z	N	Z	N	Z		
I	F	myself	58	29.3	86	38.4	76	59.2	78	71.8*	58	87.9*		
iceberg	6	large mass of ice	70	22.9	80	23.8	58	37.9	74	55.4	67	65.7		
icebox	4	ice chest	76	27.6	87	43.7	73	58.9	78	66.7*	63	68.3*		
iced	6	cooled	56	41.1	77	40.3	79	67.1*	76	76.3*	47	85.1*		
icicle	6	stick of ice	77	23.4	94	39.4	62	29.0	77	50.6	68	54.4		
icy	F	freezing	49	26.5	56	44.6	72	62.5	63	87.3*	61	86.9*		
idea	F	thought	78	16.7	79	32.9	69	50.7	66	66.7*	68	69.1*		
identify	6	recognize	65	15.4	89	18.0	69	31.9	71	46.5	66	43.9		
identity	6	who a person is	70	20.0	88	27.3	62	27.4	79	27.8	66	34.8		
idiot	6	stupid person	70	20.0	80	22.5	58	25.9	74	35.1	67	44.8		
idiotic	6	stupid	68	17.6	74	18.9	76	28.9	70	35.7	69	36.2		
idle	6	not busy	78	19.2	73	24.7	81	27.2	81	18.5	71	28.2		
idler	6	lazy person	68	29.4	80	27.5	64	35.9	68	44.1	71	39.4		
idol	6	thing worshipped	68	19.1	80	32.5	64	40.6	68	38.2	71	43.7		
if	F	supposing	61	24.6	81	34.6	77	48.1	61	55.7	70	80.0*		
igloo	6	hut	75	28.0	88	25.0	77	37.7	74	39.2	72	47.2		
ignorance	6	lack of knowledge	74	23.0	79	26.6	77	39.0	80	45.0	57	50.9		
ignorant	6	knowing nothing	78	24.4	73	20.5	81	24.7	81	32.1	71	46.5		
ignore	6	pay no attention to	76	21.1	91	18.7	75	29.3	85	45.9	57	57.9		
ill	F	sick	69	31.9	93	41.9	70	62.9	80	76.3*	70	87.1*		
illegal	6	against the law	78	16.7	73	24.7	81	28.4	81	30.9	71	47.9		
illness	6	sickness	70	28.6	69	34.8	87	65.5	67	80.6*	57	91.2*		
illustrate	6	make clear	54	18.5	86	16.3	73	12.3	77	18.2	63	33.3		
illustration	6	picture	78	25.6	82	22.0	82	28.0	85	43.5	61	52.5		
illustrator	6	artist	71	23.9	98	26.5	79	48.1	65	55.4	64	68.8*		
image	6	picture in the mind	70	26.6	63	25.4	76	39.5	70	42.9	58	58.6		
imaginable	6	possible	45	17.6	68	32.4	79	51.9	57	70.2*	51	74.5*		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
imaginary	6	not real	56	21.4	61	29.5	60	28.3	74	39.2	49	63.3		
imagination	6	forming pictures in the mind	54	20.4	86	25.6	73	27.4	77	46.8	63	52.4		
imaginative	6	original	58	32.8	86	37.2	76	40.7	78	59.0	58	63.8		
imagine	4	form a picture in the mind	57	28.1	64	26.6	63	34.9	76	36.8	53	49.1		
imitate	6	try to be like	68	26.5	80	22.5	69	20.3	70	22.9	59	28.8		
imitation	6	not real	59	23.7	56	26.8	49	28.6	67	25.4	55	23.6		
imitation	6	copy	49	10.2	56	21.4	72	26.4	63	31.7	61	44.3		
immature	6	not full grown	63	20.6	82	15.9	71	19.7	82	29.3	67	53.7		
immeasurable	6	endless	79	38.0	75	30.7	76	35.5	83	45.8	53	52.8		
immediate	6	at once	78	26.9	82	17.1	82	20.7	85	28.2	61	36.1		
immense	6	huge	49	14.3	69	17.4	65	20.0	79	15.2	49	28.6		
immigrant	6	person who comes into a foreign country	59	39.0	56	28.6	49	36.7	67	31.3	55	36.4		
immigration	6	coming into a foreign country	68	29.4	74	31.1	76	42.1	70	30.0	69	39.1		
immovable	6	fixed	61	21.3	81	33.3	77	28.6	61	36.1	70	35.7		
imp	6	devil	60	30.0	67	31.3	79	38.0	81	25.9	62	35.5		
impatience	6	eagerness	70	30.0	69	43.5	87	43.7	67	49.3	57	43.9		
impatient	6	eager	60	21.7	70	14.3	79	21.5	82	28.0	38	26.3		
imperfect	6	having some fault	68	35.3	80	31.3	69	30.4	70	41.4	59	44.1		
imperfection	6	fault	74	32.4	79	46.8	77	50.6	80	61.3	57	59.6		
import	6	bring in from a foreign country	66	19.1	80	26.3	69	29.0	70	38.6	59	44.1		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
importance	6	value	75	21.3	88	12.5	77	28.6	74	29.7	72	38.9
important	F	meaning much	59	20.3	56	39.3	49	51.0	67	46.3	55	47.3
importation	6	something brought in	69	30.4	91	36.3	83	36.1	69	37.7	61	41.0
importer	6	trader	84	20.2	80	26.3	66	27.3	89	36.0	62	54.8
impossible	F	cannot be done	57	21.1	64	32.8	63	50.8	76	43.4	53	50.9
impossibility	6	cannot be	71	21.1	98	22.4	79	35.4	65	35.4	64	56.3
imposter	6	faker	78	12.8	82	29.3	82	29.3	85	32.9	61	39.3
impractical	6	useless	58	32.8	86	16.3	76	25.0	78	32.1	58	43.1
impress	6	have a strong effect on	80	22.5	85	15.3	84	27.4	79	24.1	60	41.7
impression	6	effect	68	16.2	74	16.2	76	32.9	70	32.9	69	34.8
impressive	6	spectacular	44	31.8	76	21.1	88	37.5	59	35.6	55	36.4
imprison	6	jail	65	26.2	71	38.0	75	42.7	66	53.0	60	50.0
imprisonment	6	being put in prison	68	20.6	80	22.5	69	40.6	70	30.0	59	42.4
improper	6	not correct	57	15.6	64	15.6	63	33.3	76	36.8	53	52.8
improve	F	make better	78	35.9	79	21.5	69	59.4	66	51.5	68	76.5*
improvement	6	making better	65	27.7	89	31.5	69	36.2	71	73.2*	66	72.7*
impudence	6	boldness	77	20.0	94	28.7	62	40.3	77	46.8	68	42.6
impudent	6	bold	66	25.8	98	23.5	66	31.8	60	33.3	84	36.9
in	F	not outside	76	31.6	91	37.4	75	62.7	85	75.3*	57	78.9*
inability	6	being unable	59	16.9	56	33.9	49	30.6	67	43.3	55	50.9
inaccurate	6	containing mistakes	74	29.7	79	34.2	77	46.8	80	41.3	57	50.9
incapable	6	having little ability	70	32.9	88	30.7	62	50.0	79	46.8	66	45.5
incense	6	substance giving a sweet smell	70	28.6	69	34.8	87	31.0	67	28.4	57	24.6
inch	F	measure	59	18.6	56	41.1	49	55.1	67	67.2*	55	72.7*
incident	6	event	70	17.1	88	27.3	62	35.5	79	34.2	66	24.2

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
incidental	6	occurring by chance	68	22.1	80	32.5	64	46.9	68	45.6	71	45.1
incinerator	6	furnace	70	25.7	88	33.0	62	48.4	79	53.2	66	54.5
include	6	put in a class	41	29.3	57	36.8	70	22.9	71	25.4	51	39.2
income	F	money	70	25.7	88	18.2	62	19.4	79	32.9	66	51.5
incomplete	6	unfinished	77	16.9	94	34.0	62	33.9	77	48.1	68	52.9
incorrect	4	wrong	56	26.8	77	20.8	79	30.4	76	44.7	47	80.9*
increase	6	make more	59	25.4	56	28.6	49	38.8	67	22.4	55	43.6
incredible	6	beyond belief	59	13.6	56	12.5	49	12.2	67	16.4	55	21.8
incubator	6	hatchery	44	22.7	76	36.8	88	37.5	59	37.3	55	27.3
incurable	6	beyond medical aid	54	29.6	86	24.4	73	27.4	77	26.0	63	17.5
indebted	6	owing money	56	35.7	77	33.8	79	35.4	76	40.8	47	34.0
indecent	6	improper	68	42.6	80	32.5	69	47.8	70	52.9	59	30.5
indecision	6	doubt	78	24.4	82	30.5	82	31.7	85	40.0	61	37.7
indeed	F	really	80	12.5	75	14.7	76	27.6	66	24.2	62	29.0
indefinite	6	general	75	24.0	88	19.3	77	18.2	74	18.9	72	25.0
indelible	6	permanent	76	30.3	87	24.1	73	28.8	78	34.6	63	38.1
indent	6	set in	57	24.6	64	28.1	63	25.4	76	21.1	53	35.8
independence	6	freedom	78	19.2	82	37.8	82	56.1	85	61.2	61	68.9*
independent	6	getting no help	65	40.0	91	39.6	69	39.1	68	41.2	64	59.4
indescribable	6	beyond words	75	18.7	88	23.9	77	32.5	74	29.7	72	40.3
index	6	list	65	24.6	89	33.7	69	59.4	71	70.4*	66	74.2*
indicate	6	show	60	45.0	67	22.4	79	19.0	81	21.0	62	35.5
indication	6	sign	66	28.8	73	35.6	69	34.8	70	52.9	66	54.5
indigestible	6	hard to digest	84	21.4	80	22.5	66	27.3	89	31.5	62	53.2
indigestion	6	stomach condition	65	16.9	89	24.7	69	18.8	71	45.1	66	42.4
individual	6	person	65	29.2	89	30.3	69	29.0	71	36.0	66	40.9
indoor	4	done in a house	41	26.8	57	61.4	70	71.4*	71	81.7*	51	84.3*

-131-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
indoors	F	in a house	56	42.9	61	50.8	60	71.7*	74	87.8*	49	87.8*		
industrial	6	having to do with workers	78	25.6	73	19.2	81	37.0	81	46.9	71	59.2		
industrious	6	hard-working	65	29.2	89	39.3	69	40.6	71	64.8	66	68.2*		
industry	6	business	66	31.8	98	25.5	66	34.8	60	53.3	84	64.3		
industry	6	steady effort	41	29.3	57	12.3	70	35.7	71	32.4	51	37.3		
inexpensive	6	cheap	69	27.5	76	27.6	64	35.9	77	54.5	52	57.7		
inexperienced	6	without practice	70	35.7	80	23.8	58	34.5	74	50.0	67	56.7		
infant	6	baby	65	26.2	89	20.2	69	27.5	71	25.4	66	28.8		
infantry	6	soldiers	66	21.2	98	26.5	66	18.2	60	28.3	84	20.2		
infect	6	cause disease	51	29.4	63	17.5	66	42.4	53	58.5	53	71.7*		
infection	6	disease	45	20.0	68	22.1	79	41.8	57	73.7*	51	72.5*		
infectious	6	tending to spread	61	24.6	81	27.2	85	28.2	74	47.3	59	37.3		
inflamm	6	make hot	71	26.8	87	25.3	72	30.6	80	36.3	56	51.8		
inflammable	6	easily set on fire	80	30.0	85	25.9	84	29.8	79	36.7	60	60.0		
inflate	6	swell	65	18.5	71	29.6	75	32.0	66	34.8	60	33.3		
influence	6	use power on	68	14.7	74	17.6	76	21.1	70	24.3	69	24.6		
inform	6	tell	45	22.2	68	26.5	79	25.3	57	33.3	51	39.2		
information	6	knowledge	59	28.8	86	33.7	61	49.2	88	50.0	63	46.0		
infuriate	6	make angry	65	29.2	89	33.7	69	31.9	71	45.1	66	37.9		
ingratitude	6	lack of thankfulness	58	22.4	70	41.4	58	41.4	57	50.9	56	48.2		
inhabitant	6	dweller	65	10.8	89	20.2	69	10.1	71	35.2	66	18.2		
inhale	6	breathe in	70	30.0	95	13.7	72	13.9	77	35.1	61	45.9		
inherit	6	get from one's ancestors	78	20.5	79	31.6	69	31.9	66	40.9	68	41.2		
inheritance	6	property	60	21.7	67	32.8	79	31.6	81	34.6	62	40.3		
initial	6	first	70	27.1	95	27.4	72	34.7	77	32.5	61	50.8		
injection	6	vaccination	59	40.7	56	41.1	49	36.7	67	32.8	55	43.6		
injure	6	hurt	78	25.6	82	26.8	82	26.8	85	52.9	61	57.4		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
injustice	6	wrong	49	16.3	69	14.5	65	23.1	79	22.8	49	40.8
inkwell	4	container	80	18.8	75	22.7	76	34.2	66	53.0	62	61.3
inland	6	set in the surface	75	20.0	88	22.7	77	28.6	74	37.8	72	27.8
inland	6	away from the coast	76	35.5	91	18.7	75	44.0	85	54.1	57	57.9
inlet	4	strip of water	59	28.8	86	29.1	61	19.7	88	23.9	63	14.3
inmost	6	farthest in	54	31.5	86	22.1	73	41.1	77	36.4	63	41.3
inn	F	hotel	65	23.1	77	35.1	76	51.3	75	72.0*	68	63.2
inner	6	inside	75	34.7	84	32.1	87	48.3	69	52.2	76	46.1
innermost	6	farthest in	45	15.6	67	29.9	79	27.8	63	41.3	53	41.5
inning	6	time at bat	68	29.4	80	22.5	69	26.1	70	24.3	59	33.9
innkeeper	6	landlord	66	25.8	73	45.2	66	45.5	86	51.2	71	54.9
innocence	6	freedom from wrong	51	21.6	63	27.0	66	37.9	53	43.4	53	49.1
innocent	6	free from wrong	49	22.4	56	21.4	72	18.1	63	25.4	61	36.1
innumerable	6	many	60	16.7	57	10.5	66	16.7	64	26.6	53	43.4
inquire	6	ask	71	22.5	87	14.9	72	9.7	80	26.3	56	46.4
inquisitive	6	curious	84	27.4	80	35.0	66	42.4	89	37.1	62	41.9
insane	6	crazy	80	27.5	75	21.3	76	17.1	66	42.4	62	45.2
insanity	6	mental disease	70	25.7	88	29.5	62	33.9	79	41.8	66	45.5
inscribe	6	write	59	16.9	56	23.2	49	22.4	67	11.9	55	27.3
inscription	6	writing	70	21.4	63	22.2	76	18.4	70	21.4	58	25.9
insect	F	bug	78	41.0	82	39.0	82	63.4	85	70.6*	61	77.0*
insert	6	put in	80	12.5	75	17.3	76	13.2	66	22.7	62	37.1
insist	6	demand	70	28.6	69	29.0	87	39.1	67	50.7	57	57.9
insole	6	lining	70	32.9	80	35.0	58	31.0	74	39.2	67	34.3
inspect	6	examine	66	30.3	98	44.9	66	56.1	60	53.3	84	50.0
inspection	6	examination	78	25.6	79	40.5	69	40.6	66	54.5	68	60.3

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
inspector	6	examiner	61	18.0	81	39.5	77	48.1	61	45.9	70	60.0		
install	6	put in	58	17.2	70	18.6	58	24.1	57	38.6	56	35.7		
instalment	6	part of money paid	60	28.3	57	26.3	66	16.7	64	18.8	53	17.0		
instant	F	quick	84	21.4	80	23.8	66	25.8	89	23.6	62	35.5		
instantaneous	6	quick	76	21.1	87	12.6	73	21.9	78	14.1	63	36.5		
instantly	6	at once	45	15.6	67	16.4	79	21.5	63	23.8	53	30.2		
instead	F	rather	49	14.3	62	35.5	57	29.8	67	34.3	57	54.4		
institute	6	organization	61	21.3	81	27.2	85	36.5	74	51.4	59	54.2		
institution	6	organization	68	45.6	80	50.0	69	47.8	70	54.3	59	35.6		
instruct	6	teach	65	29.2	71	12.7	75	14.7	66	31.8	60	35.0		
instruction	6	teaching	60	18.3	83	43.4	75	36.0	79	45.6	60	43.3		
instructive	6	giving information	58	34.5	70	42.9	58	51.7	57	59.6	56	67.9*		
instructor	6	teacher	50	18.0	68	33.8	61	19.7	60	38.3	54	42.6		
instrument	6	tool	76	26.3	91	22.0	75	34.7	85	40.0	57	40.4		
instrumental	6	played on musical instruments	60	26.7	67	14.9	79	41.8	81	34.6	62	51.6		
insult	F	hurt the feelings	60	18.3	57	28.1	66	31.8	64	48.4	53	49.1		
insure	6	make safe	49	12.2	62	35.5	57	28.1	67	31.3	57	54.4		
insurance	6	security	78	19.2	79	31.6	69	24.6	66	33.3	68	48.5		
intelligence	6	ability to learn	45	24.4	68	23.5	79	22.8	57	50.9	51	54.9		
intelligent	6	smart	66	40.9	73	27.4	69	44.9	70	61.4	66	63.6		
intend	F	plan	78	15.4	82	20.7	82	37.8	85	62.4	61	62.3		
intense	6	very great	60	21.7	67	23.9	79	20.3	81	21.0	62	22.6		
intercept	6	stop	69	23.2	93	22.6	70	22.9	80	17.5	70	21.4		
interest	6	wanting to know	69	20.3	91	20.9	83	37.3	69	52.2	61	52.5		
interested	F	wrapped up in	84	29.8	80	26.3	66	22.7	89	21.3	62	14.5		
interesting	F	holding the attention	67	41.8	83	38.6	76	48.7	84	51.2	58	65.5		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
interfere	6	come between	67	20.9	83	26.5	76	30.3	84	33.3	58	25.9
interference	6	interruption	68	50.0	80	47.5	64	42.2	68	33.8	71	38.0
intermission	6	stopping for a time	60	20.0	57	19.3	66	24.2	64	31.3	53	43.4
interrupt	6	break in	78	28.2	82	17.1	82	20.7	85	38.8	61	41.0
interruption	6	breaking in on	61	24.6	74	21.6	85	23.5	64	28.1	78	26.9
intersection	6	place where one thing crosses another	75	30.7	88	25.0	77	39.0	74	36.5	72	48.6
interview	6	meeting	84	29.8	80	26.3	66	34.8	89	51.7	62	48.4
into	F	to the inside	59	20.3	70	45.7	76	56.6	64	82.8*	56	80.4*
intoxicate	6	make drunk	60	20.0	83	27.7	75	20.0	79	34.2	60	40.0
intoxication	6	drunkenness	84	31.0	80	36.3	66	36.4	89	40.4	62	50.0
introduce	6	make known	68	13.2	71	15.5	74	16.2	67	32.8	63	42.9
introduction	6	beginning	56	42.9	61	39.3	60	33.3	74	44.6	49	51.0
intrude	6	force in	84	27.4	80	28.8	66	34.8	89	30.3	62	48.4
intrust	6	charge with	67	16.4	70	24.3	73	19.2	72	27.8	73	35.6
invade	6	enter with force	66	16.7	98	25.5	66	27.3	60	38.3	84	45.2
invasion	6	entering by force	71	19.7	87	35.6	72	31.9	80	32.5	56	42.9
invent	6	make something new	80	21.3	75	18.7	76	22.4	66	42.4	62	62.9
invention	4	something new	70	24.3	95	18.9	72	45.8	77	42.9	61	49.2
inventor	6	maker	63	22.2	82	18.3	71	36.6	82	31.7	67	47.8
invert	6	turn upside down	45	24.4	67	22.4	79	35.4	63	38.1	53	41.5
invest	4	put money to use	79	16.5	75	32.0	76	15.8	83	15.7	53	22.6
investment	6	laying out money	57	22.8	64	23.4	63	23.8	76	36.8	53	37.7
investigate	6	search	71	19.7	87	26.4	72	23.6	80	22.5	56	44.6
investigation	6	search	60	20.0	83	12.0	75	24.0	79	43.0	60	40.0
investor	6	person who invests money	69	26.1	93	24.7	70	42.9	80	47.5	70	61.4
invisible	6	not seen	60	26.7	57	22.8	66	31.8	64	39.1	53	56.6

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
invitation	6	request	78	17.9	79	27.8	69	53.6	66	53.0	68	54.4		
invite	F	ask	59	16.9	86	31.4	61	41.0	88	45.5	63	54.0		
involve	6	include	69	23.2	93	34.4	70	38.6	80	53.8	70	51.4		
inward	6	within	49	30.6	69	27.5	65	41.5	79	51.9	49	61.2		
iodine	6	medicine	51	23.5	63	27.0	66	31.8	53	49.1	53	64.2		
iris	6	part of the eye	70	27.1	95	25.3	72	33.3	77	45.5	61	49.2		
iris	6	flower	76	31.6	87	37.9	73	38.4	78	47.4	63	54.0		
iron	F	metal	49	16.3	56	23.2	72	44.4	63	63.5	61	73.8*		
irregular	6	out of order	65	10.8	71	16.9	75	20.0	66	42.4	60	33.3		
irresponsible	6	unreliable	68	41.2	74	43.2	76	55.3	70	41.4	69	53.6		
irrigate	6	supply with water	52	21.2	75	24.0	85	35.3	64	35.9	52	53.8		
irrigation	6	supplying water	75	25.3	88	28.4	77	28.6	74	33.8	72	47.2		
irritable	6	easily made angry	64	18.8	72	23.6	75	25.3	81	30.9	65	30.8		
irritate	6	annoy	73	12.3	71	8.5	73	23.3	72	36.1	67	40.3		
irritation	6	annoyance	57	15.8	64	20.3	63	23.8	76	21.1	53	32.1		
islander	6	inhabitant	61	27.9	81	27.2	77	37.7	61	31.1	70	45.7		
isle	6	island	61	23.0	81	32.1	85	38.8	74	64.9	59	50.8		
issue	6	put out	68	22.1	80	31.3	64	34.4	68	48.5	71	52.1		
it	F	thing	65	26.2	89	41.6	69	44.9	71	73.2*	66	80.3*		
italics	6	a type whose letters slant	78	15.4	79	22.8	69	36.2	66	43.9	68	48.5		
itch	6	feeling in the skin	41	31.7	57	26.3	70	37.1	71	42.3	51	51.0		
item	6	unit	70	24.3	69	26.1	87	40.2	67	53.7	57	57.9		
ivory	F	white	71	26.8	87	24.1	72	38.9	80	61.3	56	67.9*		
ivy	F	plant	44	11.4	76	27.6	88	39.8	59	61.0	55	58.2		

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
jeb	6	poke	64	32.8	76	35.5	70	34.3	78	26.9	60	33.3		
jabber	6	talk fast	76	25.0	91	29.7	75	32.0	85	36.5	57	38.6		
jack	4	tool	76	30.3	87	29.9	73	32.9	78	37.2	63	44.4		
jackal	6	dog	54	37.0	86	25.6	73	19.2	77	18.2	63	19.0		
jackass	6	donkey	70	34.3	80	28.8	58	24.1	74	32.4	67	43.3		
jacket	F	coat	69	46.4	93	59.1	70	71.4*	80	88.8*	70	92.9*		
jacks	F	game	66	28.8	73	38.4	69	47.8	70	67.1*	66	74.2*		
jagged	6	uneven	65	18.5	77	28.6	76	23.7	75	24.0	68	25.0		
jail	F	prison	70	15.7	80	27.5	58	39.7	74	55.4	67	67.2*		
jailbird	6	prisoner	60	23.3	57	45.6	66	56.1	64	54.7	53	73.6*		
jailer	6	keeper	69	27.5	93	40.9	70	58.6	80	60.0	70	68.6*		
jam	6	tight spot	45	26.7	67	25.4	79	30.4	63	47.6	53	58.5		
janitor	6	person to take care of a building	59	23.7	56	19.6	49	26.5	67	35.8	55	50.9		
January	F	month	76	46.1	91	73.6*	75	85.3*	85	90.6*	57	96.5*		
jar	F	pot	71	40.8	98	41.8	79	44.3	65	67.7*	64	84.4*		
jaw	F	part of the face	44	15.9	76	19.7	88	35.2	59	35.6	55	69.1*		
jay	F	bird	58	48.3	86	40.7	76	50.0	78	64.1	58	63.8		
jazz	6	music	56	17.9	77	20.8	79	31.6	76	34.2	47	57.4		
jealous	6	full of envy	60	23.3	83	22.9	75	30.7	79	57.0	60	51.7		
jean	6	heavy cloth	76	27.6	87	37.9	73	28.8	78	53.8	63	65.1		
jeans	4	overalls	61	34.4	74	36.5	85	44.7	64	45.3	78	57.7		
jelly	F	food	59	55.9	56	67.9*	49	83.7*	67	76.1*	55	85.5*		
jellyfish	F	animal	59	37.3	70	64.3	76	73.7*	64	78.1*	56	80.4*		
jerk	F	pull	49	12.2	62	19.4	57	19.3	67	23.9	57	45.6		
jerk	4	fool	59	20.3	56	48.2	49	46.9	67	43.3	55	36.4		
jerky	6	with sudden starts and stops	76	23.7	87	28.7	73	31.5	78	25.6	63	39.7		
jersey	6	cloth	70	20.0	69	14.5	87	33.3	67	31.3	57	29.8		

-137-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
jester	6	clown	66	19.7	98	20.4	66	31.8	60	25.0	84	46.4		
jet	6	plane	60	36.7	83	50.6	75	64.0	79	84.8*	60	76.7*		
jet	6	black	58	31.0	86	19.8	76	13.2	78	11.5	58	8.6		
jewel	4	stone	49	34.7	69	31.9	65	36.9	79	55.7	49	57.1		
jeweler	4	person who sells jewels	68	27.9	80	35.0	65	61.5	65	72.3*	71	85.9*		
jiffy	6	moment	59	23.7	56	26.8	49	24.5	67	31.3	55	21.8		
jig	F	dance	45	15.6	68	20.6	79	29.1	57	35.1	51	39.2		
jigsaw	4	puzzle	60	35.0	57	47.4	66	50.0	64	67.2*	53	67.9*		
jigsaw	4	saw	79	22.8	75	24.0	76	23.7	83	26.5	53	30.2		
jittery	6	nervous	65	32.3	91	34.1	69	43.5	68	54.4	64	62.5		
job	F	work	61	26.2	81	48.1	77	71.4*	61	91.8*	70	97.1*		
jockey	F	rider	76	28.9	87	42.5	73	45.2	78	51.3	63	74.6*		
jog	6	move up and down	56	23.2	61	24.6	60	33.3	74	33.8	49	32.7		
join	F	bring together	76	28.9	87	27.6	73	34.2	78	52.6	63	71.4*		
joint	6	place where things are joined	77	41.6	94	39.4	62	43.5	77	40.3	68	60.3		
joke	F	funny story	56	41.1	77	48.1	79	65.8	76	77.6*	47	93.6*		
joker	6	clown	50	36.0	68	50.0	61	59.0	60	68.3*	54	77.8*		
joking	F	teasing	60	26.7	70	37.1	79	63.3	82	61.0	38	73.7*		
jolly	F	merry	78	42.3	82	40.2	82	46.3	85	60.0	61	62.3		
jolt	6	shake up	71	26.8	87	10.3	72	25.0	80	25.0	56	30.4		
jot	6	write in haste	59	13.6	56	30.4	49	28.6	67	37.3	55	43.6		
journal	6	newspaper	66	25.8	73	30.1	69	29.0	70	37.1	66	33.3		
journalist	6	person in newspaper work	59	32.2	86	33.7	61	45.9	88	56.8	63	50.8		
journey	F	trip	70	25.7	63	36.5	76	34.2	70	42.9	58	67.2*		
joy	F	happiness	71	21.1	98	27.6	79	39.2	65	53.8	64	82.8*		
joyful	F	glad	69	29.0	91	37.4	83	59.0	69	72.5*	61	86.9*		

-138-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
joyless	6	sad	51	15.7	63	22.2	66	45.5	53	58.5	53	75.5*		
joyous	F	glad	49	26.5	62	33.9	57	29.8	67	49.3	57	75.4*		
jubilee	6	time of joy	60	35.0	57	31.6	66	48.5	64	32.8	53	47.2		
judge	F	decide	80	25.0	85	30.6	84	36.9	79	50.6	60	68.3*		
judgement	6	decision	45	20.0	67	34.3	79	45.6	63	54.0	53	64.2		
jug	F	bottle	68	30.9	74	27.0	76	48.7	70	54.3	69	47.8		
juggle	6	do tricks	80	31.3	85	20.0	84	33.3	79	30.4	60	36.7		
juggler	4	performer	49	20.4	56	28.6	72	38.9	63	47.6	61	59.0		
juice	F	a drink	69	44.9	93	64.5	70	80.0*	80	93.8*	70	98.6*		
juicy	F	wet	45	17.8	67	16.4	79	38.0	63	49.2	53	58.5		
july	F	month	49	53.1	62	71.0*	57	91.2*	67	91.0*	57	96.5*		
jumble	6	mess	76	26.3	87	33.3	73	20.5	78	30.8	63	20.6		
jump	F	leap	66	33.3	73	38.4	69	52.2	70	65.7	66	74.2*		
jumper	6	dress	77	19.5	94	21.3	62	16.1	77	19.5	68	23.5		
jumpy	6	nervous	80	10.0	85	30.6	84	21.4	79	26.6	60	28.3		
june	F	month	69	36.2	93	61.3	70	85.7*	80	95.0*	70	92.9*		
jungle	6	land overgrown with bushes	76	14.5	91	30.8	75	36.0	85	54.1	57	56.1		
junior	F	younger person	48	25.0	70	40.0	59	52.5	66	72.7*	57	87.7*		
junk	F	waste	56	12.5	77	24.7	79	29.1	76	32.9	47	53.2		
juror	6	member of a jury	65	24.6	61	19.7	90	45.6	67	46.3	73	49.3		
jury	6	persons chosen to give judgement	70	22.9	95	45.3	72	48.6	77	58.4	61	70.5*		
just	F	not long ago	65	15.4	71	25.4	75	30.7	66	37.9	60	48.3		
just	6	fair	64	29.7	76	31.6	70	34.3	78	42.3	60	38.3		
justice	6	fair dealing	78	20.5	79	17.7	69	31.9	66	42.4	68	51.5		
justify	6	give a good reason for	59	50.8	86	32.6	61	60.7	88	60.2	63	76.2*		
juvenile	6	young person	60	10.0	67	17.9	79	29.1	81	29.6	62	29.0		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11	12 + 13	14 + 15	16 + 17				
			N	%								
kangaroo	6	animal	75	46.7	88	61.4	77	76.6*	74	82.4*	72	87.5*
keen	F	sharp	68	23.5	80	31.3	64	23.4	68	42.6	71	38.0
keenness	6	sharpness	58	12.1	70	40.0	58	43.1	57	45.6	56	46.4
keep	F	hold	69	30.4	91	37.4	83	65.1	69	68.1*	61	78.7*
keeper	6	guard	65	23.1	71	31.0	75	46.7	66	63.6	60	70.0*
kennel	6	dog house	60	30.0	70	21.4	79	27.8	82	36.6	38	28.9
kerchief	6	cloth worn over the head	41	22.0	57	24.6	70	40.0	71	38.0	51	64.7
kernel	6	center	68	33.8	71	18.3	74	25.7	67	13.4	63	23.8
kerosene	6	oil	60	26.7	70	20.0	79	25.3	82	35.4	38	42.1
kettle	F	pot	60	25.0	67	38.6	79	38.0	81	49.4	62	51.6
key	F	tool	60	28.3	70	41.4	79	48.1	82	73.2*	38	63.2
keyboard	6	set of keys	60	13.3	70	24.3	79	24.1	82	39.0	38	44.7
kid	F	child	60	23.3	70	40.0	79	60.8	82	79.3*	38	81.6*
kidnap	6	steal a child	45	15.6	67	25.4	79	35.4	63	44.4	53	60.4
kidney	6	organ	71	18.3	96	25.5	79	26.6	65	36.9	64	57.8
kill	F	murder	70	22.9	88	27.3	62	48.4	79	57.0	66	75.8*
killer	6	murderer	64	31.3	72	37.5	80	52.5	76	59.2	50	70.0*
kimono	6	robe	68	20.6	74	20.3	76	15.8	70	18.6	69	17.4
kin	6	family	60	18.3	67	22.4	79	13.9	81	27.2	62	16.1
kind	F	friendly	75	26.7	88	43.2	77	57.1	74	63.5	72	65.3
kindergarten	6	school for children	60	45.0	70	51.4	79	48.1	82	57.3	38	52.6
kindle	6	light	60	18.3	70	7.1	79	22.8	82	11.0	38	10.5
kindliness	6	generosity	60	16.7	70	17.1	79	32.9	82	39.0	38	57.9
kindling	6	firewood	68	29.4	80	23.8	64	15.6	68	14.7	71	9.9
kindly	F	friendly	80	22.5	75	46.7	76	53.9	66	60.6	62	74.2*
kindness	F	goodness	61	29.5	81	38.3	85	50.6	74	70.3*	59	74.6*

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
king	F	ruler	75	24.0	83	19.3	77	33.8	74	44.6	72	54.2		
kingbird	6	bird	70	38.6	80	47.5	58	41.4	74	51.4	67	43.3		
kingdom	F	country	75	17.3	88	20.5	77	35.1	74	48.6	72	52.8		
kingly	6	royal	59	23.7	70	40.0	76	46.1	64	54.7	56	46.4		
kink	6	curl	67	20.9	83	16.9	76	25.0	84	23.8	58	24.1		
kiss	F	touch with the lips	70	34.3	80	61.3	58	56.9	74	83.8*	67	82.1*		
kit	4	tools	60	28.3	57	36.8	66	37.9	64	29.7	53	45.3		
kitchen	F	room	58	55.2	86	60.5	76	69.7*	78	80.8*	58	91.4*		
kite	F	toy	54	51.9	86	64.0	73	78.1*	77	75.3*	63	90.5*		
kitten	F	young cat	75	53.3	88	73.9*	77	77.9*	74	83.8*	72	94.4*		
kitty	6	cat	60	60.0	67	56.7	79	75.9*	81	72.8*	62	88.7*		
knapsack	6	bag	50	28.0	93	35.5	63	44.4	76	52.6	69	43.5		
knead	6	work into shape	49	34.7	56	35.7	72	27.8	63	31.7	61	39.3		
kneel	6	bow	54	37.0	86	32.6	73	26.0	77	31.2	63	36.5		
knife	F	cutting tool	54	35.2	86	51.2	73	61.6	77	77.9*	63	87.3*		
knight	6	soldier	61	18.0	81	32.1	77	37.7	61	47.5	70	68.6*		
knighthood	6	nobility	78	32.1	79	30.4	69	31.9	66	31.8	68	47.1		
knightly	6	brave	68	29.4	80	28.8	69	27.5	70	38.6	59	47.5		
knit	F	weave	59	20.3	86	25.6	61	44.3	88	51.1	63	63.5		
knit	6	heal	69	31.9	76	13.2	64	26.6	77	31.2	52	28.8		
knob	F	handle	68	22.1	80	32.5	69	39.1	70	55.7	59	49.2		
knock	F	hit	74	39.2	79	41.8	77	55.8	80	60.0	57	70.2*		
knocker	6	thing that knocks	74	35.1	79	35.4	77	44.2	80	48.8	57	54.4		
knot	F	tie	58	19.0	70	41.4	58	37.9	57	63.2	56	64.3		
knothole	6	hole in a board	59	25.4	86	27.9	61	54.1	88	56.8	63	65.1		
know	F	understand	59	16.9	86	40.7	61	67.2*	88	64.8	63	81.0*		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
knowledge	6	learning	59	27.1	86	34.9	61	50.8	88	69.3*	63	74.6*
knuckle	6	joint	58	24.1	70	17.1	58	27.6	57	35.1	56	30.4

-142-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
label	6	tag	60	21.7	57	24.6	66	31.8	64	31.3	53	54.7
labor	6	work	66	47.0	98	32.7	66	31.6	60	48.3	84	63.1
laboratory	6	testing place	65	23.1	71	25.4	75	30.7	66	39.4	60	55.0
laborer	6	worker	58	29.3	86	30.2	76	34.2	78	44.9	58	62.1
lace	F	web	58	31.0	86	23.3	76	25.0	78	41.0	58	43.1
lack	6	be without	76	25.0	97	19.5	73	20.5	78	37.2	63	41.3
lacquer	6	varnish	58	27.6	86	20.9	76	23.7	78	32.1	58	39.7
lacy	6	thin	50	20.0	93	11.8	63	28.6	76	18.4	69	8.7
lad	F	boy	78	34.6	79	40.5	69	44.9	66	33.3	68	47.1
ladder	F	steps	69	27.5	76	38.2	64	43.8	77	62.3	52	67.3*
lady	F	woman	74	41.9	79	55.7	77	57.1	80	77.5*	57	84.2*
ladybug	6	beetle	74	40.5	79	31.6	77	46.8	80	68.8*	57	75.4*
lag	6	fall behind	67	26.9	83	27.7	76	28.9	84	26.2	58	19.0
lake	F	body of water	67	35.8	83	51.8	76	69.7	84	84.5*	58	89.7*
lamb	F	young sheep	59	57.6	86	69.8*	61	73.8*	88	78.4*	63	84.1*
lame	F	having a hurt leg or foot	75	26.7	88	25.0	77	36.4	74	35.1	72	48.6
lamp	F	light	68	52.9	74	56.8	76	78.9*	70	85.7*	69	78.3*
lanplight	6	candlelight	69	31.9	76	31.6	64	39.1	77	49.4	52	50.0
land	F	ground	60	15.0	79	30.4	82	61.0	66	77.3*	72	81.9*
landing	6	arrival	44 -143-	36.4	76	46.1	88	56.8	59	52.5	55	81.8*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
landlady	6	owner	69	13.0	93	26.9	70	21.4	80	38.8	70	45.7
landlord	6	owner	50	18.0	93	19.4	63	30.2	76	36.8	69	37.7
landowner	6	property owner	44	25.0	76	28.9	88	48.9	59	49.2	55	78.2*
landscape	6	scene	63	12.7	82	22.0	71	28.2	82	29.3	67	37.3
landslide	6	sliding down of soil	60	20.0	70	22.9	79	38.0	82	58.5	38	55.3
lane	F	path	65	26.2	61	34.4	90	40.0	67	59.7	73	65.8
language	F	speech	60	18.3	57	40.4	66	60.6	64	65.6	53	84.9*
lanky	6	thin	44	27.3	76	13.2	88	23.9	59	13.6	55	12.7
lantern	F	light	49	42.9	56	42.9	72	38.9	63	39.7	61	50.8
lap	F	front part of a person sitting down	70	28.6	63	30.2	76	56.6	70	45.7	58	51.7
lap	6	one time around a race track	69	24.6	91	29.7	83	37.3	69	50.7	61	44.3
lapel	6	part of a coat	74	23.0	79	31.6	77	29.9	80	17.5	57	24.6
lard	F	fat	44	40.9	76	19.7	88	18.2	59	25.4	55	38.2
large	F	big	41	41.5	57	64.9	70	65.7	71	78.9*	51	92.2*
lariat	6	rope	68	36.8	71	26.8	74	10.8	67	16.4	63	28.6
lark	6	bird	50	28.0	93	30.1	63	27.0	76	36.8	69	21.7
lark	6	good fun	63	34.9	82	35.4	71	29.6	82	20.7	67	31.3
lash	F	whip	70	17.1	80	22.5	58	19.0	74	29.7	67	35.8
lass	F	girl	60	26.7	79	30.4	82	29.3	66	21.2	72	19.4
last	F	end	50	38.0	93	53.8	63	77.8*	76	80.3*	69	85.5*
lasting	6	permanent	45	31.1	67	37.3	79	43.0	63	47.6	53	37.7
latch	6	lock	58	19.0	70	38.6	58	29.3	57	36.8	56	42.9
late	F	tardy	59	27.1	56	51.8	49	59.2	67	70.1*	55	74.5*
late	4	not long ago	61	29.5	81	25.9	77	26.0	61	32.8	70	30.0
lather	6	foam	78	28.2	82	25.6	82	29.3	85	42.4	61	34.4
latitude	6	distance north or south of the equator	49	20.4	56	21.4	72	27.3	63	41.3	61	49.2

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
laugh	F	sounds you make when you hear a joke	68	27.9	74	41.9	76	67.1*	70	82.9*	69	88.4*		
laughter	6	joy	49	30.6	56	32.1	72	56.9	63	63.5	61	73.8*		
launch	6	start	64	15.6	72	20.8	75	16.0	81	29.6	65	36.9		
launder	6	wash	49	28.6	62	32.3	57	47.4	67	44.8	57	59.6		
laundress	6	cleaning lady	65	27.7	61	39.3	90	40.0	67	53.7	73	64.4		
laundry	F	wash house	67	20.9	70	34.3	73	52.1	72	72.2*	73	78.1*		
lava	6	melted rock	64	29.7	76	26.3	70	51.4	78	41.0	60	61.7		
lavatory	6	bathroom	68	39.7	74	21.6	76	21.1	70	28.6	69	34.8		
lavender	6	purple	69	26.1	91	18.7	83	13.3	69	18.8	61	18.0		
law	F	rule	50	44.0	93	40.9	63	65.1	76	81.6*	69	79.7*		
lawbreaker	6	criminal	78	23.1	82	30.5	82	34.1	85	47.1	61	60.7		
lawful	6	legal	71	33.8	98	21.4	79	39.2	65	40.0	64	56.3		
lawless	6	disobedient	50	24.0	93	28.0	63	36.5	76	59.2	69	52.2		
lawn	F	grass	69	31.9	91	28.6	83	47.0	69	58.0	61	65.6		
lawsuit	6	case in court	50	22.0	93	31.2	63	36.5	76	55.3	69	55.1		
laxative	6	remedy	66	18.2	73	39.7	69	39.1	70	32.9	66	37.9		
lay	F	put down	68	38.2	71	50.7	74	47.3	67	50.7	63	63.5		
layer	6	cover	68	26.5	71	29.6	74	29.7	67	28.4	63	36.5		
lazy	F	not willing to work	70	31.4	95	50.5	72	68.1*	77	77.9*	61	93.4*		
laziness	6	idleness	68	35.3	71	32.4	74	32.4	67	49.3	63	49.2		
lead	F	direct	68	27.9	71	23.9	74	33.8	67	68.7*	63	61.9		
leader	F	boss	61	41.0	74	39.2	85	56.5	64	60.9	78	64.1		
leaflet	6	booklet	68	29.4	74	28.4	76	39.5	70	35.7	69	37.7		
league	6	measurement	52	25.0	75	25.3	85	34.1	64	23.4	52	15.4		
league	6	association	68	29.4	71	32.4	74	33.8	67	50.7	63	54.0		
lean	6	having little fat	45	20.0	67	11.9	79	20.3	63	23.8	53	34.0		
lean	F	rest on	68	23.5	71	32.4	74	31.1	67	34.3	63	39.7		

-145

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
leap	F	jump	57	31.6	64	23.4	63	27.0	76	55.3	53	52.8		
learn	F	find out	45	31.1	67	26.9	79	49.4	63	76.2*	53	75.5*		
leash	6	rope	70	31.4	95	22.1	72	13.9	77	20.8	61	24.6		
least	F	smallest	75	18.7	84	32.1	87	37.9	69	53.6	76	52.6		
leather	F	skins of animals	74	31.1	79	29.1	77	53.2	80	82.5*	57	78.9*		
leathery	6	tough	59	27.1	86	31.4	61	39.3	68	34.1	63	42.9		
leave	F	go away	60	20.0	70	34.3	79	56.2	62	74.4*	38	78.9*		
lecture	6	speech	60	20.0	83	21.7	75	34.7	79	34.2	60	38.3		
lecturer	6	speaker	78	16.7	73	17.8	81	27.2	81	43.2	71	49.3		
ledge	6	shelf	74	32.4	79	24.1	77	28.6	80	32.5	57	40.4		
leftover	6	scraps	60	28.3	83	18.1	75	22.7	79	26.6	60	21.7		
legal	6	lawful	45	28.9	67	26.9	79	35.4	63	44.4	53	35.8		
legend	6	story	44	29.5	76	22.4	88	20.5	59	28.8	55	38.2		
legislate	6	make laws	41	17.1	57	19.3	70	20.0	71	28.2	51	43.1		
legislation	6	making laws	45	15.6	67	16.4	79	19.0	63	31.7	53	50.9		
legislature	6	persons making laws	60	33.3	67	31.3	79	48.1	81	44.4	62	67.7*		
lemon	F	fruit	56	32.1	61	50.8	60	71.7*	74	83.8*	49	87.8*		
lemonade	F	drink	69	34.8	93	44.1	70	64.3	80	83.8*	70	88.6*		
lend	F	trust with	70	11.4	69	18.8	87	26.4	67	40.3	57	43.9		
length	F	a measure	65	23.1	61	26.2	90	43.3	67	62.7	73	74.0*		
lengthen	4	make longer	68	25.0	71	19.7	74	29.7	67	44.8	63	57.1		
lens	6	glass	68	26.5	71	28.2	74	23.0	67	40.3	63	50.8		
leopard	4	cat	60	38.3	83	34.9	75	36.0	79	57.0	60	46.7		
less	F	smaller	65	43.1	71	43.7	75	61.3	66	62.1	60	70.0*		
lesson	F	something to be learned	75	28.0	88	26.1	77	44.2	74	58.1	72	72.2*		
let	F	allow	76	23.7	91	25.3	75	37.3	85	60.0	57	63.2		
let	6	for rent	68	41.2	80	36.3	69	31.9	70	25.7	59	33.9		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
letter	P	note	64	43.8	72	40.8	80	73.8*	76	75.0*	50	88.0*
lettuce	P	plant	64	28.1	76	39.5	70	57.1	78	65.4	60	80.0*
level	P	flat	45	20.0	67	29.9	79	26.6	63	50.8	53	62.3
lever	6	bar	70	22.9	95	16.8	72	25.0	77	14.3	61	23.0
liable	6	likely	60	28.3	79	25.3	82	37.8	66	36.4	72	43.1
liar	6	person who lies	51	25.5	63	23.8	66	39.4	53	54.7	53	79.2*
liberty	P	freedom	51	37.3	63	54.0	66	57.6	53	71.7*	53	90.6*
librarian	4	person in charge of a library	69	23.2	91	33.0	83	55.4	69	49.3	61	54.1
library	P	building	64	54.7	72	59.7	80	85.0	76	89.5*	50	98.0*
lice	P	insects	78	26.9	73	32.9	81	44.4	81	46.9	71	64.8
license	6	permission	57	28.1	64	25.0	63	34.9	76	42.1	53	66.0
lick	P	pass the tongue over	45	11.1	67	31.3	79	39.2	63	52.4	53	73.6*
licorice	6	candy	71	31.0	98	24.5	79	27.8	65	27.7	64	15.6
lid	P	cover	71	22.5	98	26.5	79	30.4	65	52.3	64	67.2*
lie	P	false story	71	31.0	98	33.7	79	55.7	65	69.2*	64	85.9*
lieutenant	6	officer	76	28.9	91	30.8	75	29.3	85	38.8	57	49.1
life	P	being alive	57	36.8	64	40.6	63	60.3	76	73.7*	53	71.7*
lifeless	6	dead	71	25.4	98	30.6	79	36.7	65	50.8	64	71.9*
life-like	6	looking alive	63	20.6	82	37.8	71	43.7	82	56.1	67	74.6*
lifelong	6	for life	76	28.9	87	39.1	73	34.2	78	60.3	63	60.3
lifetime	6	period during which life lasts	71	31.0	98	22.4	79	40.5	65	55.4	64	62.5
lift	P	raise	67	25.4	70	28.6	73	42.5	72	58.3	73	50.7
lift	6	elevator	71	26.8	98	20.4	79	29.1	65	46.2	64	54.7
light	P	lamp	71	49.3	98	66.3	79	74.7	65	86.2*	64	90.6*
lighten	6	make bright	71	19.7	98	31.6	79	57.0	65	70.8*	64	87.5*
lightning	P	flash of electricity	71	38.0	98	52.0	79	63.3	65	81.5*	64	87.5*
lighthouse	6	tower	71	28.2	98	27.6	79	45.6	65	41.5	64	73.4*
lightweight	6	fighter	68	35.3	74	37.8	76	34.2	70	32.9	69	37.7

-147-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
like	F	much the same	66	27.3	73	42.5	69	36.2	70	64.3	66	72.7*		
likable	6	pleasing	71	28.2	98	31.6	79	39.2	65	49.2	64	57.8		
likeness	6	resemblance	49	24.5	62	25.8	57	24.6	67	44.8	57	52.6		
likewise	6	the same	71	18.3	96	20.4	79	22.8	65	20.0	64	39.1		
lilac	6	shrub	67	22.4	83	27.7	76	21.1	84	31.0	58	32.8		
lily	F	plant	71	32.4	98	32.7	79	50.6	65	44.6	64	68.8*		
limb	F	part of the body	60	30.0	57	28.1	66	28.8	64	35.9	53	35.8		
limber	6	bending easily	79	30.4	75	28.0	76	27.6	83	39.8	53	37.7		
lime	F	fruit	71	25.4	98	40.3	79	53.2	65	72.3*	64	79.7*		
lime	6	substance to improve soil	70	24.3	88	20.5	62	37.1	79	53.2	66	63.6		
limestone	6	rock	80	32.5	85	29.4	84	46.4	79	57.0	60	76.7*		
limit	4	furthest point	45	15.6	68	25.0	79	41.8	57	59.6	51	62.7		
limitless	6	without end	71	19.7	98	18.4	79	29.1	65	29.2	64	46.9		
limp	F	walk lamely	84	36.9	80	40.0	66	37.9	89	40.4	62	59.7		
line	6	business	71	22.5	98	23.5	79	16.5	65	35.4	64	32.8		
line	F	row	58	24.1	70	30.0	58	46.6	57	49.1	56	64.3		
linen	F	cloth	68	32.4	74	16.2	76	34.2	70	37.1	69	42.0		
liner	6	slip	60	26.7	79	29.1	82	22.0	66	19.7	72	27.8		
linger	6	stay	75	18.7	88	9.1	77	9.1	74	28.4	72	16.7		
liniment	6	lotion	68	16.2	74	28.4	76	28.9	70	30.0	69	29.0		
lining	6	inner covering	67	14.9	83	34.9	76	28.9	84	41.7	58	39.7		
links	6	rings of a chain	59	28.8	56	19.6	49	24.5	67	20.9	55	25.5		
linoleum	6	floor covering	67	25.4	70	18.6	73	23.3	72	36.1	73	32.9		
lint	6	bits of thread	60	25.0	67	23.9	79	29.1	81	37.0	62	33.9		
lion	F	animal	67	43.3	70	58.6	73	80.8*	72	97.2*	73	95.9*		
lioness	6	female lion	68	30.9	74	44.6	76	46.1	70	48.6	69	60.9		
lip	F	one of the edges of the mouth	44	27.3	76	31.6	88	60.2	59	64.4	55	61.8		

-148-

-148-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
lipstick	6	make-up	71	33.8	87	25.3	72	36.1	80	51.3	56	75.0*
liquor	6	a drink	64	31.3	76	31.6	70	27.1	78	29.5	60	60.0
list	F	record	56	28.6	61	37.7	60	55.0	74	68.9*	49	79.6*
listen	F	try to hear	68	13.2	74	45.9	76	72.4*	70	71.4*	69	79.7*
listener	6	hearer	78	19.2	79	25.3	69	40.6	66	62.1	68	72.1*
literature	6	writings	68	20.6	80	18.8	69	26.1	70	34.3	59	33.9
litter	6	young animals	67	22.4	70	18.6	73	20.5	72	31.9	73	32.9
little	F	not big	75	52.0	84	50.0	87	78.2*	69	82.6*	76	90.8*
live	F	have life	78	34.6	82	45.1	82	56.1	85	72.9*	61	77.0*
lively	F	exciting	50	28.0	93	34.4	63	55.6	76	50.0	69	55.1
liver	F	meat	75	14.7	84	22.6	87	28.7	69	55.1	76	71.1*
livestock	6	animals	61	34.4	81	30.9	65	38.8	74	37.8	59	47.5
lizard	F	animal	49	42.9	69	55.1	65	52.3	79	74.7*	49	81.6*
llama	6	animal	69	36.2	93	36.6	70	42.9	80	50.0	70	52.9
load	F	large amount	49	32.7	56	23.2	72	33.3	63	44.4	61	59.0
loaf	4	do nothing	65	18.5	89	27.0	69	26.1	71	31.0	66	33.3
loaf	F	block	58	27.6	70	22.9	58	13.8	57	29.8	56	41.1
loafer	4	bum	70	32.9	69	27.5	87	31.0	67	35.8	57	45.6
loan	F	lend	58	37.9	70	47.1	58	37.9	57	52.6	56	48.2
lobster	4	animal	66	24.2	98	35.7	66	50.0	60	46.3	84	66.7*
lobby	4	hall	75	26.7	84	22.6	87	33.3	69	30.4	76	31.6
local	6	of a place	51	33.3	63	33.3	66	51.5	53	56.6	53	60.4
locality	6	place	73	21.9	71	32.4	73	28.8	72	37.5	67	61.2
locate	4	find	63	38.1	82	13.4	71	25.4	82	35.4	67	52.2
location	4	place	70	22.9	63	31.7	76	35.5	70	35.7	58	58.6
lock	F	fastening	50	24.0	68	16.2	61	26.2	60	33.3	54	35.2
locker	6	closet	61	42.6	74	52.7	85	71.8*	64	76.6*	78	82.1*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
locket	4	case	60	23.3	70	37.1	79	31.6	82	41.5	38	50.0
lockjaw	6	blood poisoning	69	18.3	91	41.8	83	30.1	69	40.6	61	47.5
locksmith	4	man who repairs locks	74	35.1	79	35.4	77	42.9	80	50.0	57	63.2
locomotive	F	engine	58	12.1	70	20.0	58	22.4	57	42.1	56	53.6
locust	6	grasshopper	74	25.7	79	24.1	77	24.7	80	26.3	57	22.8
lodge	4	house	60	26.7	57	33.3	66	37.9	64	28.1	53	60.4
lodging	6	housing	75	22.7	88	31.8	77	44.2	74	39.2	72	52.8
loft	6	attic	61	31.1	74	21.6	85	23.5	64	28.1	78	21.8
lofty	6	high	68	20.6	74	21.6	76	27.6	70	24.3	69	21.7
log	F	wood	80	33.8	75	44.0	76	67.1*	66	81.8*	62	80.6*
log	6	diary	48	25.0	70	28.6	59	23.7	66	24.2	57	15.8
logical	6	reasonable	70	21.4	88	26.1	62	53.2	79	53.2	66	43.9
loller	6	linger	60	30.0	83	34.9	75	38.7	79	36.7	60	43.3
lone	F	single	60	20.0	57	35.1	66	30.3	64	35.9	53	56.6
loneliness	4	being lonely	66	30.3	73	37.0	69	31.9	70	42.9	66	54.5
lonesome	F	alone	67	28.4	83	30.1	76	57.9	84	57.1	58	69.0*
lonely	F	without company	66	31.3	73	38.4	69	44.9	70	61.4	66	65.2
long	F	cell	70	41.4	88	53.4	62	67.7*	79	82.3*	66	80.3*
longitude	6	distance on the earth's surface	66	28.3	73	35.6	69	42.0	70	65.7	66	62.1
look	F	see	45	68.9*	67	77.6*	79	82.3*	63	96.8*	53	92.5*
lookout	F	sharp watch	70	34.3	88	28.4	62	62.9	79	64.6	66	62.1
loom	6	machine for weaving	59	28.3	86	23.3	61	39.3	86	43.2	63	49.2
loop	F	circle	45	31.1	67	19.4	79	31.6	63	33.3	53	39.6
loose	F	not tight	44	13.6	76	28.9	88	40.9	59	47.5	55	69.1*
loosen	6	untie	48	18.3	70	24.3	59	18.6	66	36.4	57	47.4
loot	6	rob	66	36.4	73	38.4	69	37.7	70	34.3	66	31.8
lop	6	cut	49	24.5	69	26.1	65	30.8	79	15.2	49	20.4

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
lord	F	master	64	20.3	76	30.3	70	37.1	78	35.9	60	65.0
lordship	6	title	73	19.2	71	23.9	73	16.4	72	15.3	67	17.9
lose	F	not have	68	35.3	60	41.3	69	50.7	70	72.9*	59	63.1*
loser	F	one who loses	67	28.4	70	34.3	73	49.3	72	73.6*	73	71.2*
loss	F	having lost something	49	26.5	69	30.4	65	46.2	79	54.4	49	69.4*
lot	6	plot	70	41.4	88	50.0	62	35.5	79	53.2	66	37.9
lot	F	many	51	25.5	63	54.0	66	66.7*	53	71.7*	53	63.0*
lotion	6	liquid	44	20.5	76	36.2	88	47.7	59	52.5	55	67.3*
loud	F	not quiet	56	26.8	61	49.2	60	56.7	74	70.3*	49	79.6*
loudness	6	loud sound	66	37.9	73	38.4	69	47.8	70	48.6	66	37.9
lounge	6	room	76	34.2	87	43.7	73	34.2	78	55.1	63	52.4
lounge	6	couch	49	28.6	69	33.3	65	29.2	79	29.1	49	44.9
love	F	strong liking	67	25.4	63	32.5	76	42.1	64	50.0	58	63.8
lover	F	sweetheart	60	21.7	57	54.4	66	71.2*	64	67.2*	53	66.8*
loveliness	6	beauty	60	33.3	57	38.6	66	57.6	64	62.5	53	66.0
loving	4	fond	60	18.3	57	17.5	66	30.3	64	32.8	53	47.2
lovely	F	beautiful	71	23.9	96	36.7	79	67.1*	65	78.5*	64	87.5*
low	F	not high	51	31.4	63	57.1	66	72.7*	53	61.1*	53	96.2*
loyal	6	faithful	77	28.6	94	37.2	62	41.9	77	49.4	68	54.4
loyalty	6	faithfulness	49	34.7	56	21.4	72	36.1	63	50.8	61	57.4
lubricant	6	grease	66	22.1	71	28.2	74	25.7	67	35.8	63	31.7
luck	F	fortune	74	29.7	79	25.3	77	31.2	60	28.8	57	38.6
luckily	6	fortunately	67	17.9	83	33.7	76	26.3	64	40.5	58	51.7
luckless	6	unfortunately	76	21.1	87	34.5	73	34.2	78	50.0	63	57.1
lucky	F	fortunate	79	24.1	75	28.0	76	48.7	63	39.0	53	62.3
lug	6	drag	76	26.3	87	31.0	73	37.0	78	20.5	63	36.5

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
luggage	6	baggage	77	37.7	94	48.9	62	50.0	77	59.7	68	72.1*		
lukewarm	6	neither hot nor cold	76	18.4	87	33.3	73	54.8	78	70.5*	63	57.1		
lullaby	4	song	59	18.6	70	14.3	76	21.1	64	15.6	56	26.8		
lumber	F	logs	48	14.6	70	34.3	59	35.6	66	63.6	57	71.9*		
lumberman	4	woodsman	77	31.2	94	50.0	62	50.0	77	63.6	68	76.5*		
lump	F	hunk	65	26.2	77	29.9	76	30.2	75	49.3	68	42.6		
lunch	F	meal	45	26.7	68	52.9	79	53.2	57	80.7*	51	84.3*		
lung	4	one of the breathing organs	64	20.3	72	36.1	80	46.3	76	68.4*	50	82.0*		
luster	6	shine	70	18.6	95	25.3	72	23.6	77	16.9	61	18.0		
luxury	6	thing pleasant but not necessary	76	34.2	87	37.9	73	24.7	78	28.2	63	34.9		
lye	6	strong solution	70	17.1	88	33.0	62	29.0	79	32.9	66	33.3		
lying	F	telling a lie	69	26.1	93	39.8	70	58.6	80	46.3	70	55.7		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
macaroni	6	food	80	41.3	85	30.6	84	41.7	79	45.6	60	61.7
machine	F	engine	60	30.0	57	42.1	66	57.6	64	62.5	53	79.2*
machinist	6	skilled worker	76	30.3	87	34.5	73	42.5	78	60.3	63	63.5
macrarel	6	fish	70	21.4	88	9.1	62	19.4	79	31.6	66	21.2
mad	F	angry	61	21.3	81	51.9	77	67.5*	61	73.8*	70	87.1*
madam	4	lady	60	32.5	85	31.0	84	35.7	79	45.6	60	50.0
madman	6	crasy person	58	25.9	70	54.3	58	51.7	57	68.4*	56	75.0*
magazine	6	place for cartridges	71	10.3	87	28.7	72	40.3	80	51.3	56	67.9*
magic	F	charm	52	21.2	75	37.3	85	40.0	64	46.9	52	55.8
magical	6	done by magic	60	21.7	57	33.3	66	40.9	64	39.1	53	52.8
magician	6	wizard	60	23.3	79	16.5	82	35.4	66	40.9	72	50.0
magnet	4	piece of iron	61	23.0	74	27.0	85	47.1	64	54.7	78	69.2*
magnetic	6	attractive	61	31.1	81	29.6	77	37.7	61	31.1	70	45.7
magnificence	6	oplander	54	9.3	86	15.1	73	12.3	77	15.6	63	27.0
magnificent	6	grand	76	18.4	87	20.7	73	13.7	78	19.2	63	25.4
maestro	6	bird	61	41.0	81	25.9	85	17.6	74	20.3	59	27.1
mahogany	6	wood	67	20.9	83	28.9	76	25.0	84	28.6	58	22.4
maid	F	servant	71	21.1	98	31.6	79	46.8	65	47.7	64	70.3*
maiden	6	girl	76	36.8	87	32.2	73	28.8	78	43.6	63	49.2
maidenhood	6	girlhood	59	33.9	56	33.9	49	42.9	67	41.8	55	45.5
maid-servant	6	hired help	69	14.5	76	22.4	64	25.0	77	42.9	52	44.2
mail	F	letters	68	61.8	80	76.3*	69	79.7*	70	94.3*	59	86.4*
mailbox	F	letter box	68	66.2	80	77.5*	64	85.9*	68	95.6*	71	95.6*
mailman	F	postman	61	42.6	81	58.0	77	74.0*	61	80.3*	70	90.0*
main	4	important	60	25.0	70	35.7	79	36.7	82	56.1	38	60.5
mainland	6	part of a continent	76	21.1	87	26.4	73	37.0	78	41.0	63	54.0

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
maintain	6	keep up	67	26.9	70	21.4	73	19.2	72	38.9	73	34.2
majesty	6	tittle	68	26.5	80	12.5	65	27.7	65	32.3	71	52.1
majesty	6	dignity	49	20.4	62	30.6	57	14.0	67	32.8	57	33.3
major	F	greater	76	26.3	87	37.9	73	37.0	78	57.7	63	54.0
majority	6	greater part	68	16.2	80	13.8	69	15.9	70	24.3	59	22.0
make	F	build	61	23.0	81	44.4	77	49.4	61	59.0	70	80.0*
maker	4	builder	49	26.5	69	34.8	65	36.9	79	59.5	49	67.3*
malaria	6	disease	58	12.1	86	23.3	76	23.7	78	33.3	58	39.7
male	6	man	61	29.5	81	34.6	77	49.4	61	73.8*	70	88.6*
malt	6	barley	64	20.3	72	25.0	80	31.3	76	44.7	50	50.0
mama	F	mother	61	50.8	81	70.4*	77	68.8*	61	78.7*	70	92.9*
mammal	6	animal	59	30.5	86	43.0	61	63.9	88	71.6*	63	77.8*
mammoth	6	elephant	61	29.5	81	30.9	77	26.0	61	36.1	70	61.4
mammoth	6	huge	59	33.9	70	24.3	76	34.2	64	39.1	56	42.9
mammy	4	mother	58	69.0*	86	61.6	76	73.7*	64	82.1*	58	79.3*
man	F	male	45	22.2	68	30.9	79	45.6	57	78.9*	51	84.3*
manage	6	handle	60	40.0	79	24.1	82	31.7	66	27.3	72	38.9
management	6	control	65	21.5	91	15.4	69	34.8	68	44.1	64	56.3
manager	F	boss	51	25.5	63	33.3	66	60.6	53	73.6*	53	83.0*
mane	F	hair	79	16.5	76	18.4	91	14.3	64	29.7	69	13.0
manger	F	box	57	28.1	64	29.7	63	12.7	76	23.7	53	24.5
manhood	4	time of being a man	57	22.8	64	37.5	63	49.2	76	44.7	53	62.3
maniac	6	crazy person	61	39.3	81	18.5	77	23.4	61	21.3	70	45.7
manicure	6	care for the hands	50	18.0	93	16.1	63	33.3	76	26.3	69	26.1
mankind	6	human race	67	29.9	70	30.0	73	39.7	72	52.8	73	50.7
manly	6	brave	50	20.0	93	31.2	63	52.4	76	64.5	69	62.3
manner	6	way of doing	50	20.0	93	24.7	63	38.1	76	47.4	69	55.1

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
mansion	6	house	50	20.0	93	24.7	63	14.3	76	21.1	69	23.2
mantel	6	shelf	49	34.7	69	23.2	65	29.2	79	16.5	49	30.6
manufacture	6	make	50	28.0	93	18.3	63	22.2	76	48.7	69	46.4
manufacturer	6	maker	64	39.1	72	25.0	75	26.7	81	37.0	65	58.5
manuscript	6	book	78	19.2	73	11.0	81	21.0	81	24.7	71	42.3
many	F	great number	50	42.0	93	38.7	63	73.0*	76	81.6*	69	91.3*
map	F	chart	65	29.2	89	36.0	69	52.2	71	81.7*	66	77.3*
maple	F	tree	66	22.7	98	35.7	66	43.9	60	71.7*	84	76.2*
marble	F	rock	68	30.9	80	35.0	69	50.7	70	50.0	59	64.4
march	F	walk	49	34.7	62	48.4	57	49.1	67	65.7	57	77.2*
March	F	month	67	43.3	83	54.2	76	77.6*	84	79.8*	58	93.1*
mare	F	horse	41	39.0	57	15.8	70	24.3	71	23.9	51	33.3
margarine	6	substitute for butter	50	30.0	93	29.0	63	52.4	76	55.3	69	46.4
margin	6	edge	60	18.3	83	26.5	75	17.3	79	34.2	60	33.3
marigold	6	plant	57	24.6	64	17.2	63	22.2	76	23.7	53	30.2
marine	6	of the sea	68	25.0	80	28.8	64	28.1	68	45.6	71	39.4
marine	6	soldier	76	22.4	91	18.7	75	37.3	85	48.2	57	57.9
marionette	6	puppet	76	30.3	87	27.6	73	21.9	78	14.1	63	22.2
mark	F	line	50	20.0	93	35.5	63	54.0	76	73.7*	69	72.5*
marker	6	clerk	66	24.2	98	24.5	66	45.5	60	48.3	84	60.7
market	F	sell	65	16.9	71	32.4	75	46.7	66	53.0	60	75.0*
marksmen	6	good shot	54	38.9	86	30.2	73	26.0	77	36.4	63	44.4
marmalade	6	jam	64	28.1	76	22.4	70	21.4	78	15.4	60	13.3
maroon	6	red	64	23.4	76	19.7	70	12.9	78	16.7	60	21.7
maroon	6	leave helpless	70	30.0	80	22.5	58	25.9	74	37.8	67	32.8
marsh	4	soft land	50	20.0	93	28.0	63	38.1	76	44.7	69	50.7
marshal	6	officer	56	21.4	61	21.3	60	26.7	74	41.9	49	49.0

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
marshmallow	6	candy	66	33.3	73	28.8	69	42.0	70	58.6	66	63.6		
marshy	6	swampy	70	21.4	69	31.9	87	40.2	67	44.8	57	38.6		
marriage	F	wedding	76	28.9	87	49.4	73	56.2	78	78.2*	63	90.5*		
marry	F	wed	59	32.2	56	39.3	49	51.0	67	56.7	55	65.5		
marvel	6	feel surprise	61	31.1	74	31.1	85	37.6	64	45.3	78	56.4		
marvelous	4	wonderful	65	24.6	61	34.4	90	35.6	67	53.7	73	68.5*		
mash	4	crush	78	38.5	82	35.4	82	43.9	85	50.6	61	50.8		
mask	F	cover	68	29.4	80	41.3	64	48.4	68	63.2	71	66.2		
masquerade	6	party	65	32.3	91	27.5	69	18.8	68	23.5	64	15.6		
mass	6	religious service	48	10.4	70	34.3	59	28.8	66	51.5	57	42.1		
mass	6	large quantity	68	22.1	80	23.8	69	13.0	70	35.7	59	22.0		
massive	6	big	60	33.3	67	26.9	79	19.0	81	19.8	62	19.4		
mast	F	pole	65	20.0	89	33.7	69	29.0	71	31.0	66	25.8		
master	F	ruler	45	28.9	68	14.7	79	32.9	57	47.4	51	41.2		
masterpiece	6	work of art	76	31.6	87	35.6	73	31.5	78	35.9	63	41.3		
mat	F	rug	68	20.6	80	35.0	69	31.9	70	48.6	59	55.9		
match	F	piece of wood	58	29.3	70	51.4	58	46.6	57	57.9	56	57.1		
mate	6	officer of a ship	65	15.4	71	31.0	75	29.3	66	36.4	60	26.7		
mate	6	husband or wife	57	21.1	64	15.6	63	33.3	76	46.1	53	39.6		
mate	6	join	76	28.9	91	24.2	75	36.0	85	35.3	57	43.9		
material	6	what a thing is made from	49	20.4	69	20.3	65	27.7	79	50.6	49	69.4*		
mathematical	6	numerical	50	34.0	93	46.2	63	66.7*	76	73.7*	69	63.8		
mathematics	4	study of numbers	70	31.4	80	46.3	58	51.7	74	74.3*	67	80.6*		
matinee	6	show	48	18.8	70	21.4	59	20.3	66	30.3	57	38.6		
matter	F	what things are made of	56	16.1	77	13.0	79	27.8	76	38.2	47	44.7		
mattress	F	cushion	57	19.3	64	26.6	63	28.6	76	35.5	53	47.2		
May	F	month	64	57.8	72	52.8	75	77.3*	81	85.2*	65	90.8*		

WORD	D.F.E GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
may	F	be allowed	57	26.3	64	35.9	63	44.4	76	60.5	53	60.4		
maybe	F	possibly	41	22.0	57	42.1	70	52.9	71	67.6*	51	78.4*		
mayonaisse	6	salad dressing	66	27.3	73	35.6	69	42.0	70	47.1	66	56.1		
mayor	F	head of a city	59	25.4	86	25.6	61	50.8	88	48.9	63	63.5		
maypole	F	stick	58	24.1	86	33.7	76	36.8	78	47.4	58	63.8		
me	F	I	41	56.1	57	71.9*	70	82.9*	71	87.3*	51	90.2*		
meadow	F	grassy land	70	28.6	88	28.4	62	45.2	79	50.6	66	59.1		
meal	F	food	60	48.3	67	50.7	79	64.6	81	80.2*	62	87.1*		
meal	4	grain	71	25.4	87	19.5	72	29.2	80	48.8	56	64.3		
mean	F	nasty	76	18.4	91	25.3	75	38.7	85	63.5	57	68.4*		
meaning	4	that which is intended	71	23.9	87	23.0	72	30.6	80	46.3	56	44.6		
meaningless	6	senseless	64	21.9	72	33.3	75	34.7	81	45.7	65	53.8		
means	F	intends	64	25.0*	72	36.1	75	53.3	81	56.8	65	76.9*		
meantime	4	in the time between	60	20.0	67	26.9	79	31.6	81	45.7	62	48.4		
meanwhile	6	at the same time	67	10.4	83	26.5	76	36.8	84	50.0	58	53.4		
measles	6	disease	65	23.1	91	34.1	69	40.6	68	45.6	64	70.3*		
measure	F	find the size	48	14.6	70	34.3	59	42.4	66	65.2	57	75.4*		
measurement	4	way of finding size	45	8.9	67	17.9	79	39.2	63	55.6	53	62.3		
meat	F	food	78	41.0	82	52.4	82	80.5*	85	81.2*	61	88.5*		
mechanic	6	workman	71	36.6	87	33.3	72	34.7	80	31.3	56	60.7		
mechanical	6	motor-driven	71	26.8	87	23.0	72	25.0	80	27.5	56	53.6		
medal	6	badge	54	22.2	86	29.1	73	46.6	77	36.4	63	52.4		
meddle	6	interfere	70	24.3	80	25.0	58	34.5	74	41.9	67	37.3		
medical	6	having to do with medicine	58	24.1	86	25.6	76	31.6	78	38.5	58	37.9		
medicine	F	drugs	77	23.4	94	41.5	62	56.5	77	72.7*	68	76.5*		
medium	6	in the middle	60	20.0	79	30.4	82	39.0	66	54.5	72	59.7		
meek	6	mild	65	29.2	91	33.0	69	36.2	68	30.9	64	46.9		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
meet	F	come together	60	23.3	67	38.8	79	57.0	81	63.0	62	74.2*		
meeting	F	gathering	65	23.1	77	31.2	76	46.1	75	52.0	68	61.8		
megaphone	6	horn	60	28.3	67	37.3	79	29.1	81	34.6	62	35.5		
melody	6	tune	68	30.9	80	21.3	64	29.7	68	30.9	71	26.8		
melon	6	fruit	65	21.5	77	40.3	76	57.9	75	80.0*	68	64.7		
member	F	one who belongs	61	14.8	81	23.5	77	36.4	61	52.5	70	71.4*		
membership	4	persons belonging to a body	68	20.6	71	26.8	74	29.7	67	41.8	63	63.5		
memorable	6	worth remembering	61	24.5	74	24.3	85	28.2	64	35.9	78	46.2		
memorial	6	monument	44	11.4	76	30.3	88	44.3	59	47.5	55	58.2		
memorize	4	learn by heart	78	16.7	82	20.7	82	20.7	85	25.9	61	13.1		
memory	4	ability to remember	44	20.5	76	21.1	88	33.0	59	27.1	55	65.5		
menagerie	6	collection of animals	68	33.8	80	35.0	64	28.1	68	25.0	71	36.6		
spend	F	repair	77	32.5	94	26.6	62	41.9	77	46.8	68	63.2		
mental	6	of the mind	49	24.5	69	33.3	65	27.7	79	34.2	49	51.0		
mentality	6	intelligence	59	16.9	56	33.9	49	40.8	67	41.8	55	45.5		
mention	4	speak about	75	30.7	88	23.9	77	31.2	74	48.6	72	61.1		
menu	4	list of food	60	20.0	70	32.9	79	50.6	82	54.9	38	63.2		
merchandise	6	goods	60	48.3	67	23.9	79	20.3	81	25.9	62	38.7		
merchant	4	person who sells	77	19.5	94	30.9	62	33.9	77	51.9	68	55.9		
merciful	6	kind	66	19.7	73	26.0	66	33.3	86	40.7	71	43.7		
merciless	6	without pity	41	12.2	57	22.8	70	21.4	71	31.0	51	56.9		
mercury	6	liquid used in thermometers	80	28.8	85	29.4	84	28.6	79	39.2	60	48.3		
mercy	6	kindness	80	38.8	85	36.5	84	34.5	79	43.0	60	46.7		
mere	6	only	48	20.8	70	21.4	59	16.9	66	18.2	57	21.1		
mermaid	4	sea spirit	49	14.3	69	27.5	65	18.5	79	27.8	49	42.9		
merriment	6	fun	49	16.3	69	15.9	65	15.4	79	16.5	49	32.7		
merry	F	joyful	60	25.0	67	40.3	79	65.8	81	64.2	62	87.1*		

-156-

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
mess	6	meal	60	36.7	67	29.9	79	25.3	81	27.2	62	14.5
mess	F	dirty group of things	56	26.8	61	39.3	60	48.3	74	62.2	49	69.4*
message	F	words sent	59	18.6	56	19.6	49	30.6	67	38.8	55	47.3
messenger	4	person who goes on errands	56	25.0	61	23.0	60	33.3	74	51.4	49	65.3
meter	6	a measure	80	27.5	85	34.1	84	38.1	79	45.6	60	68.3*
meter	6	something that measures	56	25.0	61	31.1	60	36.7	74	39.2	49	59.2
method	6	way	56	16.1	61	23.0	60	8.3	74	25.7	49	44.9
metropolis	6	large city	80	25.0	85	16.5	84	25.0	79	25.3	60	33.3
midday	6	noon	56	28.6	61	37.7	60	30.0	74	52.7	49	63.3
middle	F	center	56	23.2	61	21.3	60	43.3	74	63.5	49	77.6*
midget	6	small person	56	33.9	61	29.5	60	30.0	74	48.6	49	40.8
midst	6	middle	59	37.3	56	39.3	49	59.2	67	41.8	55	58.2
might	F	power	54	33.3	86	29.1	73	43.8	77	41.6	63	57.1
mighty	F	strong	51	15.7	63	31.7	66	56.1	53	60.4	53	71.7*
migrate	6	move from one place to another	68	26.5	80	26.3	64	28.1	68	36.8	71	42.3
migration	6	moving from one place to another	60	30.0	67	40.3	79	41.8	81	49.4	62	59.7
mild	4	gentle	49	18.4	56	17.9	72	25.0	63	34.9	61	37.7
mildness	6	gentleness	54	13.0	86	24.4	73	37.0	77	41.6	63	65.1
mile	F	a measure	59	10.2	56	16.1	49	26.5	67	44.8	55	65.5
mileage	6	miles	56	19.6	61	26.2	60	25.0	74	62.2	49	61.2
military	6	of the army	56	28.6	61	16.4	60	28.3	74	40.5	49	49.0
milk	F	a drink	59	54.2	56	73.2*	49	93.9*	67	83.6*	55	89.1*
milkweed	6	a weed	80	23.6	85	29.4	84	34.5	79	39.2	60	33.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
milky	4	white	68	52.9	80	57.5	64	79.7*	68	83.8*	71	88.7*
mill	F	factory	68	23.5	74	28.4	76	53.9	70	64.3	69	63.8
millar	F	one who runs a mill	56	19.6	61	44.3	60	43.3	74	59.5	49	67.3*
million	F	one thousand thousand	54	25.9	86	46.5	73	71.2*	77	68.8*	63	92.1*
millionaire	6	wealthy person	49	18.4	56	26.8	72	38.9	63	47.6	61	54.1
millstone	6	stone for grinding	71	22.5	87	26.4	72	26.4	80	47.5	56	58.9
mimeograph	6	copy	56	30.4	61	24.6	60	16.7	74	31.1	49	44.9
mincemeat	6	filling for pies	56	21.4	61	27.9	60	26.7	74	44.6	49	34.7
mind	F	part of a person that thinks	70	15.7	88	31.8	62	48.4	79	60.8	66	71.2*
mine	6	a bomb	56	35.7	61	24.6	60	25.0	74	25.7	49	30.6
mine	6	a hole in the earth	71	22.5	98	21.4	79	34.2	65	36.9	64	40.6
miner	F	man who works in a mine	71]	25.4	87	34.5	72	51.4	80	70.0*	56	75.0*
mineral	6	substance in the earth	45	28.9	68	25.0	79	40.5	57	54.4	51	68.6*
mingie	6	mix	59	30.5	70	20.0	76	30.3	64	39.1	56	25.0
miniature	6	tiny	71	28.2	87	20.7	72	25.0	80	28.8	56	37.5
mining	4	digging	68	25.0	80	32.5	69	39.1	70	54.3	59	54.2
minister	4	preacher	70	18.6	88	27.3	62	35.5	79	45.6	66	51.5
ministry	6	agency	68	17.6	80	25.0	69	31.9	70	48.6	59	61.0
mink	6	animal	71	19.7	87	32.2	72	38.9	80	33.8	56	53.6
minor	6	less important	61	26.2	81	22.2	85	24.7	74	41.9	59	33.9
pinor	6	person under legal age	64	26.6	76	18.4	70	32.9	78	24.4	60	40.0
mint	6	plant	61	39.3	81	35.8	85	38.8	74	43.2	59	40.7
mint	F	place where money is coined	63	31.7	82	31.7	71	35.2	82	36.6	67	56.7
minstrel	6	singer	71	21.1	87	33.3	72	29.2	80	32.5	56	39.3
minuet	6	dance	71	28.2	87	37.9	72	26.4	80	21.3	56	17.9

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
minus	6	less	59	23.7	56	28.6	49	36.7	67	35.8	55	54.5
minute	F	space of time	60	28.3	67	55.2	79	79.7*	81	67.9*	62	90.3*
minute	6	tiny	61	27.9	81	22.2	77	14.3	61	19.7	70	22.9
miracle	6	wonderful happening	71	23.9	87	24.1	72	30.6	80	26.3	56	39.3
mirror	F	looking glass	71	40.8	87	50.6	72	65.3	80	83.8*	56	83.9*
misbehave	4	behave badly	71	19.7	87	16.1	72	23.6	80	47.5	56	50.0
mischief	F	trouble	71	15.5	87	24.1	72	36.1	80	51.3	56	66.1
mischievous	6	full of pranks	59	16.9	56	12.5	49	26.5	67	22.4	55	30.9
misconduct	4	crime	61	23.0	81	13.6	85	28.2	74	35.1	59	40.7
miserable	6	unhappy	71	31.0	87	32.2	72	29.2	80	42.5	56	48.2
misery	4	unhappiness	48	27.1	70	21.4	59	25.4	66	34.8	57	43.9
misfortune	6	bad luck	77	28.6	94	43.6	62	38.7	77	50.6	68	66.2
mishap	6	accident	76	25.0	91	25.3	75	36.0	85	36.5	57	42.1
mislead	6	guide wrongly	63	20.6	82	30.5	71	23.9	82	32.9	67	44.8
mismanagement	6	bad policy	65	30.8	61	27.9	90	35.6	67	26.9	73	39.7
misplace	4	lose	75	33.3	88	19.3	77	29.9	74	33.8	72	40.3
miss	F	fail to catch	79	8.9	76	11.8	91	25.3	64	48.4	69	55.1
Miss	F	young woman	78	43.6	79	59.5	69	81.2*	66	80.3*	68	92.6*
mission	6	errand	68	33.8	80	23.8	64	50.0	68	39.7	71	36.6
mist	6	fog	66	28.8	73	30.1	66	34.8	86	38.4	71	39.4
mistake	F	fault	56	28.6	77	41.6	79	58.2	76	69.7*	47	83.0*
mistaken	6	wrong	48	22.9	70	40.0	59	47.5	66	65.2	57	70.2*
mistletoe	6	plant	60	15.0	57	33.3	66	24.2	64	32.8	53	45.3
mistress	6	woman	84	27.4	80	27.5	66	28.8	89	38.2	62	37.1
mistrust	6	doubt	69	26.1	76	22.4	64	26.6	77	31.2	52	42.3
misty	F	foggy	74	31.1	79	30.4	77	39.0	80	37.5	57	47.4

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
misunderstand	6	make a mistake	67	26.9	70	23.6	73	38.4	72	68.1*	73	76.7*		
mite	6	bit	70	42.9	88	38.6	62	38.7	79	36.7	66	28.8		
mitt	F	glove	65	38.5	71	32.4	75	45.3	66	45.5	60	55.0		
mitten	F	glove	48	47.9	70	54.3	59	62.7	66	69.7*	57	63.2		
mix	F	put together	78	29.5	73	23.3	81	49.4	81	53.1	71	70.4*		
mixer	4	churn	48	25.0	70	28.6	59	42.4	66	47.0	57	40.4		
mob	4	crowd	70	30.0	95	15.8	72	16.7	77	23.4	61	47.5		
moccasin	6	snake	56	19.6	77	28.6	79	26.6	76	27.6	47	44.7		
moccasin	6	shoe	65	36.9	89	25.8	69	33.3	71	42.3	66	34.8		
mock	6	laugh at	61	26.2	81	33.3	77	24.7	61	24.6	70	24.3		
mockery	6	making fun	70	34.3	88	34.1	62	17.7	79	27.8	66	36.4		
model	6	copy	69	21.7	93	21.5	70	31.4	80	18.8	70	32.9		
model	6	shape	61	16.4	81	32.1	77	36.4	61	41.0	70	61.4		
modern	4	of the present	70	27.1	88	34.1	62	21.0	79	32.9	66	43.9		
modernize	6	bring up to date	84	26.2	80	20.0	66	24.2	89	21.3	62	21.0		
modest	6	humble	65	26.2	89	34.6	69	34.8	71	33.8	66	43.9		
moist	4	damp	67	28.4	70	25.7	73	31.5	72	62.5	73	61.6		
moisten	6	wet	67	31.3	83	16.9	76	26.3	84	34.5	58	48.3		
moisture	6	humidity	70	14.3	69	33.3	87	51.7	67	56.7	57	66.4*		
molasses	4	sugar	61	14.6	81	13.6	77	18.2	61	13.1	70	47.1		
molar	6	tooth	61	26.2	81	28.4	77	26.0	61	26.2	70	31.4		
mold	6	form	60	41.7	70	47.1	79	32.9	82	32.9	38	26.3		
mold	6	growth	71	18.3	98	22.4	79	29.1	65	35.4	64	40.6		
mole	6	spot on the skin	61	32.8	81	30.9	77	32.5	61	42.6	70	57.1		
mole	6	animal	57	28.1	64	34.4	63	36.5	76	53.9	53	64.2		
moment	F	instant	67	13.4	70	18.6	73	26.0	72	50.0	73	56.2		
momentary	6	sudden	41	17.1	57	10.5	70	17.1	71	23.9	51	25.5		

162-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
Monday	F	day of the week	70	57.1	63	74.6*	76	92.1*	70	92.9*	58	96.6*
money	F	coin	79	39.2	76	50.0	91	57.1	64	82.8*	69	87.0*
mongrel	6	animal	64	21.9	76	35.5	70	12.9	78	14.1	60	26.7
monk	6	friar	59	18.6	86	12.8	61	42.6	86	40.9	63	47.6
monkey	F	animal	84	51.2	80	70.0*	66	83.3*	89	88.8*	62	90.3*
monster	6	imaginary animal	60	28.3	57	35.1	66	54.5	64	57.8	53	79.2*
monstrous	6	huge	54	27.8	86	22.1	73	30.1	77	29.9	63	49.2
month	F	four weeks	65	41.5	89	55.1	69	68.1*	71	83.1*	66	87.9*
monthly	6	happening once a month	76	32.9	91	41.8	75	54.7	85	50.6	57	52.6
monument	4	tower	59	25.4	86	23.3	61	29.5	88	30.7	63	39.7
mood	6	state of mind	76	21.1	91	22.0	75	29.3	85	44.7	57	50.9
moon	F	heavenly body	66	16.7	73	30.1	66	37.9	86	54.7	71	63.4
moonbeam	4	ray	66	18.2	73	19.2	66	16.7	86	24.4	71	31.0
moose	F	animal	66	28.8	73	63.0	66	59.1	86	77.9*	71	80.3*
mop	F	scrub	59	11.9	70	41.4	76	40.8	64	54.7	56	44.6
mope	6	be sad	66	25.8	73	27.4	66	22.7	86	29.1	71	26.8
more	F	greater	59	32.2	86	37.2	61	50.8	88	52.3	63	71.4*
moreover	6	also	61	19.7	74	24.3	85	24.7	64	35.9	78	38.5
morgue	6	place for persons found dead	66	24.2	73	19.2	66	28.8	86	27.9	71	42.3
morn	4	forenoon	70	31.4	69	29.0	87	41.4	67	41.8	57	33.3
morning	F	part of the day	59	42.4	86	44.2	61	75.4*	88	79.5*	63	87.3*
moron	6	feeble-minded person	61	24.6	81	17.3	85	21.2	74	33.8	59	30.5
morrow	F	following day	50	20.0	68	27.9	61	42.6	60	33.3	54	27.8
mosquito	6	insect	70	15.7	95	25.3	72	51.4	77	57.1	61	77.0*
most	F	greatest	74	25.7	79	45.6	77	49.4	80	68.8*	57	80.7*
mostly	F	chiefly	64	26.6	72	36.1	80	36.3	76	50.0	50	50.0

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
moss	F	plants	71	15.5	98	23.5	79	35.4	65	35.4	64	68.8*		
mossy	6	grassy	67	40.3	83	37.3	76	55.3	84	53.6	58	81.0*		
moth	4	insect	45	20.0	68	35.3	79	40.5	57	66.7*	51	78.4*		
mother	F	parent	49	20.4	56	50.0	72	56.9	63	81.0*	61	88.5*		
motherhood	6	being a mother	41	14.6	57	36.6	70	31.4	71	26.8	51	52.9		
motherless	6	orphaned	56	26.8	61	23.0	60	45.0	74	54.1	49	69.4*		
motherly	6	like a mother	76	40.8	91	53.8	75	61.3	85	69.4*	57	75.4*		
motion	4	suggestion	61	29.5	81	19.8	85	29.4	74	40.5	59	45.8		
motion	6	movement	74	44.6	79	41.8	77	54.5	70	43.8	57	59.6		
motionless	6	still	51	27.5	63	22.2	66	22.7	53	32.1	53	37.7		
motive	6	reason	68	20.6	80	13.8	64	31.3	68	38.2	71	40.8		
motor	6	travel by automobile	65	33.8	61	42.6	90	62.2	67	74.6*	73	75.3*		
motor	F	engine	64	23.4	72	27.8	75	44.0	81	60.5	65	75.4*		
motorcar	6	automobile	61	29.5	81	40.7	85	65.9	74	77.0*	59	88.1*		
motorist	6	person who travels by automobile	58	15.5	86	32.6	76	50.0	78	57.7	58	70.7*		
motto	6	saying	80	18.8	75	24.0	76	14.5	66	21.2	62	21.0		
mound	6	heap	71	14.1	98	21.4	79	20.3	65	24.6	64	29.7		
mount	6	hill	79	26.6	76	34.2	91	36.3	64	57.8	69	52.2		
mount	F	go up	51	27.5	63	23.8	66	42.4	53	34.0	53	58.5		
mountain	F	high hill	41	36.6	57	56.1	70	70.0*	71	87.3*	51	86.3*		
mourn	6	feel sorrow	65	26.2	61	24.6	90	30.0	67	28.4	73	35.6		
mournful	6	sad	69	30.4	91	23.1	83	30.1	69	40.6	61	45.9		
mouse	F	animal	75	40.0	88	62.5	77	71.4*	74	82.4*	72	87.5*		
mouth	F	opening	67	22.4	70	41.4	73	53.4	72	62.5	73	60.3		
mouthpiece	6	part of a pipe	57	31.6	64	34.4	63	42.9	76	56.6	53	66.0		
movable	4	not fixed	67	37.3	70	28.6	73	30.4	72	34.7	73	35.6		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
move	F	go	71	39.4	96	45.9	79	51.9	65	78.5*	64	89.1*		
movement	6	change	79	17.7	75	24.0	76	34.2	83	43.4	53	62.3		
movie	F	picture	61	49.2	81	51.9	85	76.5*	74	85.1*	59	81.4*		
mow	6	place where hay is stored	69	20.3	76	26.3	64	31.3	77	40.3	52	34.6		
mow	F	cut	79	27.3	75	22.7	76	30.3	83	20.5	53	34.0		
much	F	great amount	61	29.5	81	34.6	77	46.8	61	62.3	70	85.7*		
mud	F	wet earth	61	21.3	61	33.3	77	58.4	61	57.4	70	87.1*		
muddy	F	dirty	69	24.6	91	38.5	83	65.1	69	66.7*	61	72.1*		
muffin	6	cake	50	22.0	93	29.0	63	33.3	76	46.1	69	39.1		
muffle	6	cover	50	16.0	93	15.1	63	23.8	76	30.3	69	20.3		
muffler	6	anything used to deaden sound	63	25.4	82	17.1	71	19.7	82	26.8	67	47.8		
muffler	6	scarf	67	17.9	83	22.9	76	36.8	84	45.2	58	44.8		
mug	F	cup	64	39.1	72	44.4	80	30.0	76	31.6	50	32.0		
mulberry	6	tree	65	33.3	71	32.4	75	44.0	66	50.0	60	66.7*		
mule	F	animal	50	36.0	93	33.3	63	54.0	76	60.5	69	71.0*		
multiply	F	make more	48	33.3	70	37.1	59	37.3	66	56.1	57	66.7*		
mumble	6	mutter low sounds	70	31.4	88	39.8	62	38.7	79	44.3	66	37.9		
mummy	6	dead body	64	28.1	76	31.6	70	48.6	78	51.3	60	70.0*		
mumps	6	disease	79	25.3	75	21.3	76	46.1	83	44.6	53	62.3		
munch	6	chew	66	27.3	96	21.4	66	27.3	60	20.0	84	33.3		
murder	F	killing	50	32.0	93	30.1	63	39.7	76	52.6	69	56.5		
murderer	4	killer	56	25.0	77	33.3	79	38.0	76	35.5	47	55.3		
murderous	6	deadly	45	13.3	60	14.7	79	21.5	57	42.1	51	64.7		
murmur	4	speak	49	16.3	62	12.9	57	14.0	67	25.4	57	43.9		
muscular	6	strong	71	16.9	87	18.4	72	37.5	80	53.8	56	69.6*		
museum	4	building in which a collection is kept	49	44.9	69	36.2	65	36.9	79	59.5	49	71.4*		

-165-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
mush	4	cereal	80	18.8	75	22.7	76	23.7	66	37.9	62	41.9
mushroom	4	plant	57	24.6	64	34.4	63	34.9	76	50.0	53	62.3
music	F	pleasing sounds	52	17.3	75	40.0	65	62.4	64	67.2*	52	94.2*
musician	4	performer	60	15.0	70	35.7	79	51.9	82	51.2	36	60.5
musket	6	gun	75	26.7	66	27.3	77	35.1	74	35.1	72	37.5
muskrat	6	animal	60	31.7	57	40.4	66	65.2	64	50.0	53	67.9*
mus	6	put into disorder	67	17.9	70	14.3	73	12.3	72	23.6	73	24.7
must	F	should	75	26.0	88	25.0	77	39.0	74	58.1	72	75.0*
mustache	6	whiskers	71	32.4	87	34.5	72	41.7	80	55.0	56	67.9*
mustard	6	flavoring	71	31.0	67	33.3	72	44.4	80	71.3*	56	91.1*
musty	6	moldy	45	13.3	67	19.4	79	25.3	63	36.1	53	45.3
mutiny	6	revolt	66	22.1	74	31.1	76	36.6	70	32.9	69	42.0
mutter	4	speak low	66	19.1	74	24.3	76	30.3	70	34.3	69	31.9
mutton	6	meat	75	13.3	86	14.8	77	29.9	74	21.6	72	23.6
muzzle	6	front of a gun	71	31.0	67	26.4	72	23.6	80	22.5	56	25.0
muzzle	6	cover	61	24.6	81	22.2	85	17.6	74	17.6	59	30.5
my	F	belonging to me	68	32.4	69	33.8	69	46.4	70	54.3	59	72.9*
mysterious	6	secret	66	18.2	96	16.3	66	37.9	60	45.0	64	60.7
mystery	4	secret	65	26.2	77	39.0	76	53.9	75	78.7*	68	70.6*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
nag	6	scold	60	30.0	83	19.3	75	18.7	79	35.4	60	20.0
nag	6	horse	70	25.7	95	24.2	72	16.7	77	15.6	61	13.1
nail	4	piece of metal bare	68	23.5	80	26.3	65	46.2	65	69.2*	71	70.4*
naked	4		70	30.0	69	24.6	87	35.6	67	52.2	57	43.9
name	F	title	69	24.6	93	39.8	70	62.9	80	70.0*	70	81.4*
nameless	6	having no name	69	15.9	76	30.3	64	45.3	77	64.9	52	53.8
nap	6	threads on cloth	59	22.0	86	15.1	61	16.4	88	22.7	63	25.4
nap	F	short sleep	76	35.5	91	29.7	75	38.7	85	56.5	57	63.2
napkin	F	piece of cloth	50	18.0	93	31.2	63	49.2	76	61.8	69	63.8
narrow	F	not wide	78	30.8	73	39.7	81	56.8	81	51.9	71	64.8
narcotic	6	drug	71	22.5	87	26.4	72	25.0	80	23.8	56	44.6
nasty	F	mean	50	20.0	93	31.2	63	33.3	76	43.4	69	34.8
nation	4	country	50	40.0	93	36.6	63	63.5	76	73.7*	69	65.2
national	6	federal	50	24.0	93	31.2	63	44.4	76	57.9	69	47.8
nationality	6	belonging to a nation	54	35.2	86	26.7	73	39.7	77	54.5	63	57.1
nationwide	6	all over	80	20.0	75	22.7	76	21.1	66	28.8	62	48.4
native	6	locally born	61	21.3	81	24.7	77	33.8	61	29.5	70	61.4
natural	6	true to life	61	26.2	81	27.2	77	36.4	61	45.9	70	77.1*
naturalist	6	person who makes a study of animals	70	21.4	80	31.3	58	46.6	74	56.8	67	65.7
naturally	6	of course	60	18.3	83	18.1	75	25.3	79	30.4	60	21.7
nature	6	kind	60	31.7	70	40.0	79	29.1	82	52.4	38	57.9
naughty	F	bad	61	31.1	81	39.5	77	48.1	61	44.3	70	75.7*
naval	6	of the navy	75	30.7	88	38.6	77	35.1	74	47.3	72	47.2
navigable	6	that ships can travel on	60	33.3	79	29.1	82	31.7	66	34.8	72	34.7
navigate	6	sail	78	20.5	73	20.5	81	27.2	81	32.1	71	26.8
navigation	6	figuring out the course of a ship	70	22.9	80	31.3	58	29.3	74	31.1	67	37.3

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
navy	F	a color	64	21.9	76	15.8	70	35.7	78	30.8	60	53.3
nay	6	no	68	23.5	80	21.3	69	24.6	70	25.7	59	30.5
near	F	close	65	23.1	71	31.0	75	50.7	66	63.6	60	73.3*
nearby	F	close	67	16.4	83	32.5	76	46.1	84	65.5	58	77.6*
neatly	F	almost	78	26.9	82	31.7	82	57.3	85	67.1*	61	70.5*
neat	F	in order	58	25.9	70	24.3	58	37.9	57	56.1	56	73.2*
neck	F	part of the body	66	15.2	73	46.6	66	59.1	86	77.9*	71	80.3*
necklace	4	jewelry	80	35.0	75	36.0	76	43.4	66	60.6	62	71.0*
necktie	F	band worn around the neck	61	27.9	81	34.6	85	38.8	74	54.1	59	59.3
necessary	4	needed	50	28.0	93	21.5	63	38.1	76	46.1	69	47.8
necessity	6	need	69	39.1	91	33.0	83	32.5	69	33.3	61	45.9
need	F	in want of	70	25.7	69	26.1	87	39.1	67	49.3	57	66.7*
needful	6	necessary	65	27.7	89	21.3	69	37.7	71	50.7	66	42.4
needle	F	tool	71	33.8	87	26.4	72	41.7	80	66.3	56	69.6*
needle	6	tease	80	21.3	75	18.7	76	26.3	66	19.7	62	12.9
needleless	6	unnecessary	61	24.6	81	29.6	77	29.9	61	45.9	70	72.9*
needlework	6	sewing	80	25.0	75	30.7	76	39.5	66	60.6	62	62.9
needy	6	poor	57	40.4	64	32.8	63	27.0	76	23.7	53	35.8
neglect	6	give little care to	80	33.8	75	21.3	76	27.6	66	24.2	62	37.1
negro	F	colored person	80	32.5	75	34.7	76	50.0	66	72.7*	62	82.3*
neighbor	F	someone who lives nearby	80	30.0	75	46.7	76	51.3	66	71.2*	62	72.6*
neighboring	6	near	61	37.7	81	39.5	77	35.1	61	47.5	70	62.9
neighborly	4	friendly	61	21.3	74	37.8	85	49.4	64	60.9	78	69.2*
neither	F	not either	68	36.8	80	46.3	64	64.1	68	64.7	71	60.6
nephew	6	son of one's brother or sister	79	27.8	75	29.3	76	57.9	83	54.2	53	79.2*
nervous	4	easily excited	51	17.6	63	33.3	66	47.0	53	58.5	53	79.2*
nervousness	4	being easily upset	64	18.8	72	30.6	75	37.3	81	53.1	65	70.8*

WORD	COUNT	DEFINITION	FREQ									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
nest	F	place in which birds lay their eggs	50	52.0	93	62.4	63	87.3*	76	92.1*	69	85.5*
nestle	6	settle comfortably	61	31.1	81	23.5	85	22.4	74	32.4	59	39.0
net	F	web	61	37.7	81	43.2	77	39.0	61	52.5	70	70.0*
network	6	system of lines	80	21.3	75	33.3	76	42.1	66	53.0	62	62.9
neutral	6	on neither side	50	28.0	93	26.9	63	27.0	76	21.1	69	24.6
never	F	at no time	48	20.8	70	34.3	59	37.3	66	63.6	57	70.2*
nevermore	F	never again	61	29.5	81	45.7	77	54.5	61	70.5*	70	84.3*
nevertheless	6	however	80	27.5	75	24.0	76	23.7	66	34.8	62	51.6
new	F	not used	61	24.6	81	35.8	77	40.3	61	62.3	70	75.7*
newborn	4	just born	52	28.8	75	49.3	85	64.7	64	60.9	52	78.8*
newcomer	6	new arrival	80	13.8	75	16.0	76	25.0	66	28.8	62	46.8
newfangled	6	new	60	16.7	70	24.3	79	11.4	82	22.0	38	15.8
news	F	message	80	28.8	75	37.3	76	55.3	66	59.1	62	69.4*
newsreel	6	motion picture	57	26.3	64	40.6	63	42.9	76	55.3	53	64.2
next	F	nearest	54	27.8	86	44.2	73	54.8	77	61.0	63	79.4*
nibble	F	bite	60	28.3	67	26.9	79	38.0	81	42.0	62	50.0
nice	F	pleasing	51	29.4	63	39.7	66	71.2*	53	73.6*	53	84.9*
nick	6	cut	69	30.4	76	27.6	64	20.3	77	29.9	52	28.8
nickel	F	coin	60	43.3	67	58.2	79	70.9*	81	71.6*	62	87.1*
nickname	4	pet name	52	26.9	75	36.0	85	44.7	64	51.6	52	75.0*
niece	6	daughter of one's brother or sister	68	27.9	80	48.8	69	49.3	70	67.1*	59	69.5*
night	F	dark hours	45	37.8	68	60.3	79	69.6*	57	87.7*	51	92.2*
nightcap	6	cap worn in bed	64	28.1	72	34.7	75	49.3	81	63.0	65	75.4*
nightfall	6	evening	69	27.5	91	35.2	83	60.2	69	76.8*	61	75.4*
nightgown	F	night clothes	-169- 68	41.2	71	38.0	74	43.2	67	40.3	63	41.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
nightingale	6	bird	58	24.1	70	18.6	58	17.2	57	17.5	56	26.8
nightmare	4	bad dream	58	22.4	70	25.7	58	37.9	57	56.1	56	69.6*
nightly	6	every night	65	26.2	91	33.0	69	36.2	68	55.9	64	53.1
nine	F	one more than eight	74	54.1	79	57.0	77	77.9*	80	82.5*	57	94.7*
nineteen	F	nine more than 10	68	35.3	74	51.4	76	64.5	70	78.6*	69	72.5*
ninety	F	nine times ten	74	56.8	79	53.2	77	67.5*	80	77.5*	57	89.5*
nitwit	6	idiot	66	25.8	73	42.5	69	36.2	70	38.6	66	48.5
no	F	not any	66	45.5	73	63.0	66	77.3	86	79.1*	71	87.3*
nobility	6	high birth	79	30.4	76	25.0	91	18.7	64	9.4	69	17.4
noble	6	good	61	32.8	81	29.6	85	15.3	74	25.7	59	32.2
nobleman	6	man of distinction	68	25.0	80	42.5	69	36.2	70	47.1	59	61.0
nobleness	6	high birth	66	22.7	73	13.7	66	19.7	86	18.6	71	35.2
nobody	F	no one	61	27.9	81	42.0	85	58.8	74	64.9	59	79.7*
nod	F	bow the head	61	36.1	81	33.3	85	28.2	74	48.6	59	37.3
noise	F	sound	69	40.6	91	36.3	83	63.9	69	71.0*	61	77.0*
noiseless	6	silent	61	19.7	81	34.6	77	35.1	61	45.9	70	67.1*
noisy	F	loud	70	30.0	63	42.9	76	75.0*	70	80.0*	58	87.9*
nominate	6	name as a candidate	70	34.3	63	44.4	76	43.4	70	34.3	58	60.3
nomination	6	naming as a candidate	70	44.3	88	33.0	62	48.4	79	60.8	66	65.2
nonsense	4	fooling	59	33.9	86	38.4	61	42.6	88	40.9	63	47.6
nook	6	corner	78	20.5	82	25.6	82	22.0	85	22.4	61	21.3
noon	F	12 o'clock	59	45.8	86	65.1	61	77.0*	88	85.2*	63	87.3*
noonday	6	noon	68	47.1	71	42.3	74	37.8	67	37.3	63	41.3
noose	6	loop	45	28.9	68	19.1	79	30.4	57	40.4	51	43.1
nor	F	and no	45	11.1	68	36.8	79	36.7	57	50.9	51	64.7
normal	4	usual	52	25.0	75	29.3	85	41.2	64	46.9	52	73.1*

NAME	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
north	F	direction	61	18.0	74	43.2	85	61.2	64	70.3*	78	84.6*		
northerly	4	toward the north	69	21.7	76	26.3	64	37.5	77	61.0	52	65.4		
northern	F	toward the north	66	22.7	73	34.2	69	46.4	70	58.6	66	57.6		
nose	F	part of the face	59	44.1	86	47.7	61	72.1*	88	78.4*	63	90.5*		
nostril	4	opening in the nose	59	39.0	86	33.7	61	52.5	88	56.8	63	58.7		
not	F	a word that says no	59	30.5	86	47.7	61	65.6	86	73.9*	63	79.4*		
notable	6	remarkable	61	29.5	81	34.6	85	32.9	74	48.6	59	39.0		
notch	6	cut	79	30.4	76	28.9	91	14.3	64	21.9	69	18.8		
note	F	letter	61	27.9	81	44.4	85	56.5	74	67.6*	59	83.1*		
note	6	paper money	52	30.8	75	33.3	85	32.9	64	37.5	52	42.3		
notebook	6	record book	66	34.8	73	39.7	69	46.4	70	54.3	66	66.7*		
noted	6	famous	49	26.5	62	17.7	57	14.0	67	16.4	57	28.1		
notice	F	paper giving directions	84	25.0	80	31.3	66	30.3	89	44.9	62	59.7		
notice	6	see	79	21.5	75	24.0	76	46.1	83	47.0	53	69.8*		
noticeable	6	easily seen	84	14.3	80	16.3	66	16.7	89	29.2	62	30.6		
notify	6	let know	54	33.3	86	26.7	73	35.6	77	36.4	63	44.4		
notion	6	idea	61	27.9	81	14.8	85	22.4	74	37.8	59	32.2		
noun	6	part of speech	65	20.0	77	26.0	76	36.8	75	52.0	68	54.4		
nourish	6	feed	65	24.6	77	15.6	76	19.7	75	17.3	68	20.6		
nourishment	6	food	49	28.6	69	18.8	65	13.8	79	7.6	49	18.4		
novel	6	story	80	30.0	85	28.2	84	32.1	79	31.6	60	31.7		
novelist	6	writer	69	26.1	76	31.6	64	25.0	77	40.3	52	25.0		
November	F	month	78	51.3	73	65.8	81	92.6*	81	90.1*	71	91.5*		
now	F	at this time	56	23.2	77	51.9	79	51.9	76	60.5	47	80.9*		
nowadays	6	in these times	64	34.4	72	27.8	80	50.0	76	63.2	50	78.0*		
nowhere	F	in no place	84	26.2	80	32.5	66	37.9	89	52.8	62	74.2*		

-171-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
nozzle	6	tip	84	16.7	80	22.5	66	28.8	89	24.7	62	32.3
nudge	6	push	84	27.4	80	22.5	66	16.7	89	25.8	62	25.8
nugget	6	lump	56	25.0	77	24.7	79	24.1	76	19.7	47	25.5
nuisance	6	annoyance	56	28.6	77	22.1	79	30.4	76	38.2	47	36.2
numb	6	lost the power of feeling	68	19.1	71	23.9	74	32.4	67	32.8	63	41.3
number	F	figure	56	23.2	77	32.5	79	39.2	76	55.3	47	74.5*
numerical	6	in numbers	75	30.7	88	33.0	77	29.9	74	36.5	72	40.3
numerous	6	many	70	32.9	63	31.7	76	38.2	70	44.3	58	50.0
nun	6	religious woman	71	32.4	98	22.4	79	32.9	65	43.1	64	46.9
nurse	F	person who takes care of the sick	48	29.2	70	62.9	59	62.7	66	87.9*	57	86.0*
nursery	4	room for children	76	42.1	87	63.2	73	54.8	78	70.5*	63	85.7*
nut	F	fruit	64	45.3	76	40.8	70	44.3	78	62.8	60	55.0
nutmeg	6	flavoring	79	16.5	76	31.6	91	41.8	64	53.1	69	56.5
nutshell	6	pod	44	13.6	76	21.1	88	46.6	59	55.9	55	52.7

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
oak	F	tree	69	18.8	93	31.2	70	55.7	80	73.8*	70	88.6*
oaken	6	made of oak	60	31.7	70	42.9	79	69.6*	82	54.9	38	63.2
oar	F	pole	78	25.6	73	34.2	81	37.0	81	30.9	71	42.3
oarsman	6	man who rows	69	18.8	91	30.8	83	38.6	69	42.0	61	45.9
oasis	6	fertile spot in the desert	70	11.4	80	20.0	58	29.3	74	41.9	67	37.3
oath	6	curse	52	25.0	75	24.0	85	27.1	64	28.1	52	28.8
oath	6	promise	52	15.4	75	29.3	85	34.1	64	43.8	52	51.9
octmeal	F	cereal	68	35.3	60	46.3	65	73.8*	65	78.5*	71	80.3*
oats	F	grain	60	26.7	67	34.3	79	44.3	81	60.5	62	66.1
obedience	4	doing what one is told	65	21.5	89	39.3	69	33.3	71	39.4	66	37.9
obedient	6	willing to obey	56	32.1	77	36.4	79	44.3	76	60.5	47	55.3
obey	F	do what one is told	59	32.2	70	40.6	76	46.1	64	75.0*	56	69.6*
object	6	give a reason against	70	24.3	80	22.5	58	32.8	74	28.4	67	29.9
object	4	thing	70	27.1	69	17.4	67	40.2	67	50.7	57	66.7*
objection	4	reason against	52	13.5	75	12.0	85	25.9	64	26.6	52	36.5
oblige	6	do a favor	67	19.4	70	17.1	73	19.2	72	26.4	73	31.5
obliging	6	helpful	63	15.9	82	34.1	71	35.2	62	43.9	67	65.7
oblong	6	longer than broad	68	33.8	71	31.0	74	48.6	67	53.7	63	34.9
oblivious	6	quick to notice	76	22.4	91	27.5	75	37.3	85	37.6	57	29.6
observation	6	examining seen	61	29.5	74	24.3	85	24.7	64	25.0	78	46.2
observatory	6	place with a telescope	61	31.1	74	35.1	85	34.1	64	40.6	78	33.3
observe	6	see	61	37.7	74	18.9	85	15.3	64	28.1	78	57.7
observer	6	onlooker	50	26.0	68	30.9	61	39.3	60	45.0	54	46.1
obtain	6	get	70	30.0	60	23.8	58	10.3	74	21.6	67	40.3
occasion	6	time	61	19.7	74	32.4	85	36.5	64	29.7	78	41.0
occasional	6	once in a while	60	11.7	57	15.8	66	24.2	64	17.2	53	45.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
occupant	6	resident	76	22.4	87	20.7	73	28.8	78	42.3	63	36.1
occupation	6	business	69	23.2	93	29.0	70	38.6	80	46.3	70	60.0
occur	6	happen	66	19.7	98	17.3	66	13.6	60	33.3	84	47.6
occurrence	6	a happening	60	25.0	83	12.0	75	26.7	79	32.9	60	40.0
ocean	F	body of water	61	26.2	81	50.6	77	67.5*	61	75.4*	70	69.6*
October	F	month	71	60.6	90	62.2	79	79.7*	65	92.3*	64	93.8*
octopus	6	animal	67	40.3	70	50.0	73	39.7	72	70.8*	73	67.1*
odd	6	uneven	65	29.2	89	37.1	69	49.3	71	54.9	66	57.6
odd	F	strange	59	16.9	70	28.6	76	40.8	64	48.4	56	66.1
odor	4	smell	80	21.3	85	11.8	84	27.4	79	24.1	60	38.3
of	F	belonging to	80	25.0	85	34.1	84	45.2	79	44.3	60	71.7*
off	F	from	65	21.5	89	22.5	69	30.4	71	46.5	66	43.9
offend	6	hurt the feelings	59	23.7	70	22.9	76	25.0	64	34.4	56	23.2
offense	6	breaking the law	79	15.2	76	32.9	91	29.7	64	34.4	69	34.8
offer	F	put forth	65	12.3	71	26.8	75	37.3	66	37.9	60	50.0
offering	6	contribution	68	27.9	71	33.8	74	43.2	67	58.2	63	66.7*
offhand	6	without thought	59	25.4	66	23.3	61	37.7	68	37.5	63	41.3
office	F	rooms in which to work	67	25.4	70	51.4	73	67.1*	72	93.1*	73	93.2*
officer	F	police man	65	40.0	89	50.6	69	56.5	71	64.8	66	62.1
official	6	person who holds an office	64	32.8	72	25.0	80	35.0	76	28.9	50	50.0
often	F	many times	52	34.6	75	40.0	85	45.9	64	70.3*	52	78.8*
offentimes	6	often	77	32.5	94	55.3	62	45.2	77	61.0	68	69.1*
oily	6	fatty	58	15.5	86	18.6	76	19.7	70	50.0	58	48.3
ointment	6	cream	77	19.5	94	25.5	62	29.0	77	23.4	68	13.2
old	F	not young	65	35.4	77	49.4	76	67.1*	75	78.7*	68	62.4*
olden	6	of old	75	37.3	88	26.1	77	41.6	74	50.0	72	55.6

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
oleomargarine	6	substitute for butter	65	24.6	69	25.8	69	27.5	71	45.1	66	43.9
olive	4	fruit	65	26.2	91	28.6	69	37.7	68	52.9	64	56.3
omelet	6	fried eggs	56	30.4	77	27.3	79	21.5	76	23.7	47	23.4
omit	6	leave out	65	30.8	77	23.4	76	25.0	75	40.0	68	38.2
on	7	upon	65	35.4	89	37.1	69	50.7	71	85.9*	66	78.8*
once	7	one time	65	30.8	89	46.1	69	50.7	71	71.8*	66	75.8*
one	7	single	65	18.5	91	39.6	69	46.4	68	60.3	64	75.0*
onion	7	vegetable	65	33.6	77	42.9	76	73.7*	75	84.0*	68	92.6*
onsucker	6	observer	48	14.6	70	15.7	59	23.7	66	34.8	57	26.3
only	7	by itself	68	26.5	71	31.0	74	47.3	67	65.7	63	82.5*
onward	7	moving ahead	68	29.4	71	22.5	74	32.4	67	47.8	63	46.0
ooze	6	leak out	59	20.3	86	25.6	61	31.1	88	33.0	63	47.6
open	7	not shut	65	23.1	89	19.1	69	58.0	71	69.0*	66	59.1
opening	6	hole	61	32.8	81	25.9	77	33.8	61	47.5	70	64.3
opera	6	play that is sung	61	19.7	81	29.6	77	23.4	61	31.1	70	25.7
operate	6	work	84	39.3	80	31.3	66	28.8	89	38.2	62	48.4
operation	6	way a thing works	65	18.5	89	30.3	69	39.1	71	59.2	66	68.2*
operation	6	surgery	59	23.7	66	26.7	61	44.3	88	55.7	63	65.1
operator	6	worker	68	29.4	71	38.0	74	35.1	67	52.2	63	58.7
operetta	6	short opera	65	38.5	89	25.8	69	40.6	71	46.5	66	50.0
opinion	6	what one thinks	80	13.8	85	24.7	84	17.9	79	29.1	60	48.3
opossum	6	animal	49	24.5	69	31.9	65	36.9	79	34.2	49	59.2
opponent	6	person on the other side	76	15.3	91	29.7	75	18.7	85	37.6	57	38.6
opportunity	6	good chance	80	27.5	85	25.9	84	31.0	79	32.9	60	45.0
oppose	6	be against	59	18.6	86	18.6	61	18.0	88	35.2	63	47.6
opposite	6	different	59	28.8	70	42.9	76	52.6	64	62.5	56	66.1

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
opposition	6	against action	65	23.1	89	29.2	69	36.2	71	43.7	66	50.0		
or	F	otherwise	65	15.4	89	24.7	69	30.4	71	56.3	66	45.5		
orange	F	fruit	59	40.7	70	70.0*	76	81.6*	64	89.1*	56	85.7*		
orbit	6	path	59	22.0	70	17.1	76	28.9	64	34.4	56	46.4		
orchard	F	grove	84	34.5	80	35.0	66	39.4	89	38.2	62	37.1		
orchestra	6	company of musical performers	79	26.6	76	23.7	91	34.1	64	45.3	69	34.8		
orchid	6	flower	68	19.1	71	28.2	74	21.6	67	31.3	63	38.1		
order	4	command	75	26.7	88	38.6	77	37.7	74	62.2	72	70.8*		
order	6	purchase merchandise	65	23.1	91	25.3	69	27.5	68	27.9	64	37.5		
order	F	arrange	64	15.6	72	36.1	75	60.0	81	71.6*	65	76.9*		
orderly	6	neat	41	14.6	57	17.5	70	14.3	71	19.7	51	33.3		
ordinarily	6	usually	84	17.5	80	27.5	66	27.3	89	41.6	62	66.1		
ordinary	6	common	77	28.6	94	37.2	62	37.1	77	42.9	68	42.6		
ore	F	rock	59	15.3	70	20.0	76	32.9	64	39.1	56	55.4		
organist	6	organ player	76	39.5	91	51.6	75	48.0	85	60.0	57	50.9		
organization	6	group of persons	51	21.6	63	28.6	66	39.4	53	49.1	53	73.6*		
organize	6	put into order	84	29.8	80	25.0	66	21.2	89	23.6	62	33.9		
orient	6	eastern countries	76	18.4	91	17.6	75	24.0	85	28.2	57	33.3		
original	6	earliest	77	23.4	94	21.3	62	27.4	77	33.8	68	30.9		
originate	6	invent	59	18.6	70	30.0	76	34.2	64	42.2	56	37.5		
oriole	6	bird	65	26.2	91	25.3	69	33.3	68	51.5	64	62.5		
ornament	6	decoration	76	25.0	91	41.8	75	33.3	85	52.9	57	52.6		
orphan	6	child whose parents are dead	65	18.5	91	17.6	69	29.0	68	45.6	64	50.0		
orphanage	6	home for orphans	76	39.5	91	35.2	75	46.7	85	50.6	57	61.4		
ostrich	4	bird	84	36.9	80	46.3	66	39.4	89	58.4	62	53.2		
other	F	else	84	27.4	80	25.0	66	45.5	89	57.3	62	62.9		
otherwise	F	if not	76	23.7	91	20.9	75	32.0	85	43.5	57	47.4		

176

NCRS	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
otter	6	animal	65	23.1	61	32.8	90	33.3	67	32.8	73	35.6
ought	F	must	65	38.5	77	48.1	76	47.4	75	73.3*	68	63.2
ounce	4	waight	56	30.4	77	31.2	79	40.5	76	56.6	47	74.5*
our	F	belonging to us	70	30.0	50	50.0	58	56.9	74	70.3*	67	74.6*
ourselves	F	us	53	24.1	70	54.3	58	62.1	57	71.9*	56	76.8*
out	6	no longer at bat	50	26.0	68	47.1	61	45.9	60	40.0	54	40.7
out	F	away	71	40.8	98	45.9	79	67.1*	65	78.5*	64	90.6*
outbreak	6	eruption	56	26.8	61	29.5	60	15.0	74	33.8	49	40.8
outcome	6	result	66	16.7	98	27.6	66	16.7	60	21.7	84	26.2
outcry	6	scream	76	19.7	91	12.1	75	36.0	65	50.6	57	57.9
outdo	6	do more than	63	27.0	82	20.7	71	21.1	62	18.3	67	28.4
outer	4	on the outside	50	30.0	68	51.5	61	59.0	60	63.3	54	68.5*
outermost	6	farthest	59	27.1	70	34.3	76	32.9	64	31.3	56	62.5
outfield	6	part of the field beyond the diamond	76	26.3	87	27.6	73	19.2	78	29.5	63	30.2
outfit	F	clothing	65	26.2	71	31.0	75	37.3	66	47.0	60	50.0
outgrow	6	grow too large for	59	42.4	70	38.6	76	43.4	64	46.9	56	55.4
outhouse	6	toilet	60	15.0	70	31.4	79	27.8	82	31.7	38	28.9
outing	6	trip	76	26.3	91	20.9	75	38.7	85	43.5	57	49.1
outlast	6	last longer than	52	21.2	75	21.3	65	34.1	64	37.5	52	44.2
outlaw	F	robber	59	25.4	70	40.0	76	39.5	64	45.3	56	50.0
outlaw	6	prohibit	50	14.0	68	20.6	61	44.3	60	45.0	54	63.0
outlet	6	a way out	64	34.4	72	36.1	80	55.0	76	56.6	50	58.0
outline	F	line that shows the shape of an object	59	30.5	70	20.0	76	34.2	64	46.9	56	48.2
outlive	6	live longer than	68	32.4	74	29.7	76	55.3	70	61.4	69	56.5
outlook	6	view	65	23.1	91	15.4	69	21.7	68	41.2	64	56.3

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
outnumber	6	be more than	56	21.4	77	29.9	79	44.3	76	57.9	47	66.0		
outpost	6	a guard	56	25.0	77	27.3	79	27.8	76	44.7	47	57.4		
outrank	6	be superior to	56	12.5	61	26.2	60	25.0	74	17.6	49	32.7		
outrun	6	run faster than	59	42.4	70	47.1	76	64.5	64	60.9	56	57.1		
outside	F	surface	45	13.3	68	26.5	79	27.8	57	47.4	51	60.8		
outsider	6	one not belonging	56	44.6	61	19.7	60	20.0	74	25.7	49	32.7		
outskirts	6	edges	60	26.7	70	31.4	79	32.9	62	35.4	38	39.5		
outspread	6	stretched out	65	20.0	91	33.0	69	34.8	60	50.0	64	50.0		
outstanding	4	important	56	23.2	61	26.2	60	50.0	74	32.4	49	53.1		
outstretch	6	widen	59	13.6	70	31.4	76	28.9	64	28.1	56	48.2		
outward	F	on the outside	56	23.2	61	27.9	60	31.7	74	37.8	49	44.4		
outweigh	6	weigh more than	50	28.0	68	25.0	61	42.6	60	45.0	54	55.6		
oval	6	shaped like an egg	56	21.4	61	24.6	60	36.7	74	51.4	49	61.2		
oven	F	space for baking	68	30.9	80	38.8	69	43.5	70	65.7	59	67.8*		
over	F	above	44	20.5	76	50.0	88	68.2*	59	69.5*	55	87.3*		
overboard	4	over the side	68	41.2	80	37.5	69	46.4	70	67.1*	59	64.4		
overcoat	F	jacket	68	47.1	80	51.3	69	62.3	70	75.7*	59	83.1*		
overcrowd	4	put in too much	70	17.1	80	26.3	58	22.4	74	32.4	67	35.8		
overdo	6	do too much	56	25.0	61	21.3	60	28.3	74	50.0	49	42.9		
overdoes	6	more than enough	66	22.7	73	16.4	69	17.4	70	24.3	66	37.9		
overeat	F	eat too much	61	31.1	81	30.9	85	29.4	74	50.0	59	64.4		
overestimate	6	make too much of	59	32.2	70	24.3	76	31.6	64	50.0	56	46.4		
overflow	4	flood	76	30.3	91	37.4	75	56.0	85	52.9	57	64.9		
overgrown	6	grown too big	69	34.8	91	35.2	83	50.6	69	52.2	61	44.3		
overhang	6	project	69	27.5	91	13.2	83	30.1	69	29.0	61	27.9		
overhead	6	expense	59	27.1	70	21.4	76	27.6	64	31.3	56	26.8		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
overhead	F	above	59	37.3	66	30.2	61	57.4	68	70.5*	63	77.6*
overjoy	6	make very joyful	59	35.6	86	46.5	61	45.9	66	69.3*	63	82.5*
overland	4	on shore	59	32.2	86	26.7	61	45.9	66	52.3	63	66.3*
overlap	6	cover	61	18.0	61	22.2	85	21.2	74	29.7	59	30.5
overlook	6	fail to see	59	47.5	70	58.6	76	71.1*	64	67.2*	56	69.6*
overly	6	too much	75	29.3	64	27.4	67	24.1	69	20.3	76	39.5
overmuch	6	extra	63	22.2	62	26.6	71	25.4	62	37.8	67	50.7
overnight	F	for the night	61	27.9	61	46.9	65	43.5	74	56.6	59	54.2
overpass	6	bridge	59	33.9	66	26.7	61	52.5	66	46.6	63	55.6
overpower	6	be stronger than	56	28.6	77	29.9	79	44.3	76	64.5	47	63.0*
overshadow	6	be more important than	59	23.7	66	23.3	61	18.0	66	21.6	63	17.5
overshoe	4	boot	59	40.7	66	60.5	61	65.6	66	72.7*	63	67.3*
overspread	6	cover	67	26.9	70	34.3	73	46.6	72	65.3	73	56.2
overthrow	6	defeat	76	26.3	91	23.1	75	32.0	65	51.8	57	57.9
overtime	6	extra time	73	30.1	71	32.4	73	45.2	72	50.0	67	62.7
overturn	F	defeat	56	25.0	77	39.0	79	53.2	76	55.3	47	74.5*
overweight	4	having too much weight	80	23.6	65	41.2	84	57.1	79	59.5	60	80.0*
overwork	4	too much work	58	22.4	70	52.9	58	44.6	57	50.9	56	71.4*
owe	F	have to pay	79	19.0	75	26.7	76	35.5	63	36.6	53	71.7*
owl	F	bird	56	42.9	61	67.2*	60	80.0*	74	93.2*	49	95.9*
own	F	have	45	28.9	68	33.6	79	43.0	57	73.7*	51	74.5*
owner	F	holder	71	28.2	96	21.4	79	40.5	65	58.5	64	67.5*
ownership	6	possession	56	46.4	61	37.7	60	46.7	74	55.4	49	59.2
ox	F	animal	59	23.7	70	35.7	76	40.8	64	60.9	56	75.0*
oxford	6	shoe	59	23.7	70	21.4	76	22.4	64	26.6	56	30.4
oxygen	6	gas	61	29.5	81	38.3	77	45.5	61	57.4	70	85.7*
oyster	4	shellfish	50	40.0	93	29.0	63	47.6	76	65.8	69	68.1*

179

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
pace	F	way of stepping	52	11.5	75	14.7	85	23.5	64	28.1	52	30.8		
pace	6	step	65	24.6	91	19.8	69	21.7	68	22.1	64	32.6		
pack	F	bundle	60	20.0	83	24.1	75	36.0	79	45.6	60	35.0		
package	F	bundle	65	33.8	91	27.5	69	39.1	68	60.3	64	59.4		
pad	F	cushion	61	18.0	81	21.0	85	34.1	74	48.6	59	44.1		
paddle	4	row	61	14.0	81	23.5	85	14.1	74	41.9	59	42.4		
padlock	6	fastening	60	26.7	57	28.1	66	24.2	64	23.4	53	32.1		
padre	6	priest	66	28.8	73	27.4	66	42.4	86	30.2	71	33.8		
page	F	sheet of paper	69	40.6	76	65.8	64	71.9*	77	88.3*	52	92.3*		
pageant	6	spectacle	66	27.3	98	31.6	66	25.8	60	31.7	84	35.7		
pail	F	bucket	45	31.1	67	38.8	79	59.5	63	73.0*	53	71.7*		
pain	F	hurt	65	24.6	61	32.8	90	42.2	67	53.7	73	83.6*		
painful	F	hurting	49	20.4	69	26.1	65	46.2	79	55.7	49	73.5*		
paint	F	coloring	61	32.8	74	55.4	85	77.6*	64	84.4*	78	87.2*		
painting	F	picture	65	33.0	61	54.1	90	60.0	67	85.1*	73	84.9*		
pair	F	two	65	29.2	61	41.0	90	48.9	67	59.7	73	79.5*		
pajamas	4	night clothes	70	28.6	88	40.9	62	61.3	79	77.2*	66	86.4*		
pal	F	friend	64	25.0	72	38.9	75	36.0	81	65.4	65	70.8*		
palace	F	royal house	63	31.7	82	20.7	71	28.2	82	56.1	67	59.7		
pale	F	without color	68	27.9	80	21.3	65	32.3	65	33.8	71	49.3		
palm	4	inside of the hand	77	29.9	94	18.1	62	29.0	77	37.7	68	35.3		
palm	6	tree	60	26.7	57	31.6	66	50.0	64	59.4	53	73.6*		
pamphlet	4	booklet	66	15.2	98	18.4	66	15.2	60	16.7	84	20.2		
pan	F	pot	60	36.7	67	52.2	79	73.4*	81	75.3*	62	71.0*		
pancake	F	food	70	54.3	63	69.0*	76	82.9*	70	82.9*	58	91.4*		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
pane	F	sheet of glass	70	24.3	69	26.1	87	25.3	67	38.8	57	15.8
panel	6	strip	65	23.1	91	22.0	69	17.4	68	26.5	64	32.8
pangs	6	sharp pains	60	35.0	67	31.3	79	45.6	81	43.2	62	35.5
panic	6	fear	60	23.3	79	20.3	82	24.4	66	27.3	72	29.2
pansy	F	flower	68	27.9	80	26.3	65	33.8	65	35.4	71	36.6
pant	6	breathe hard	78	28.2	79	24.1	69	29.0	66	33.3	68	27.9
pantaloon	6	trousers	74	14.9	79	22.8	77	19.5	80	25.0	57	36.8
panther	4,	animal	70	32.9	88	25.0	62	24.2	79	25.3	66	37.9
pantomime	6	play without words	57	24.6	64	23.4	63	25.4	76	36.8	53	28.3
pantry	6	storeroom	45	20.0	67	19.4	79	25.3	63	27.0	53	30.2
papa	F	father	66	42.4	73	42.5	69	44.9	70	74.3*	66	77.3*
papoose	6	Indian baby	71	35.2	87	29.9	72	45.8	80	46.3	56	62.5
parade	F	march	68	32.4	80	51.3	65	67.7*	65	70.8*	71	81.7*
paradise	6	heaven	52	23.1	75	28.0	85	32.9	64	29.7	52	50.0
paragraph	6	group of sentences	64	32.8	76	28.9	70	48.6	78	62.8	60	76.7*
parallel	6	the same distance apart	84	21.4	80	23.8	66	22.7	89	21.3	62	43.5
paralysis	6	loss of the power of motion	44	18.2	76	22.4	88	21.6	59	20.3	55	32.7
paralyzed	4	make powerless	84	27.4	80	31.3	66	43.9	89	44.9	62	62.9
parasol	6	umbrella	64	20.3	76	17.1	70	17.1	78	9.0	60	8.3
paratrooper	6	soldier	58	27.6	86	27.9	76	27.6	78	34.6	58	43.1
parboil	6	cook	80	37.5	75	34.7	76	35.5	66	31.8	62	30.6
parcel	6	package	51	39.2	63	44.4	66	30.3	53	39.6	53	37.7
pardon	6	set free	70	22.9	69	14.5	87	24.1	67	41.8	57	50.9
pardon	F	forgive	75	17.3	88	28.4	77	42.9	74	36.5	72	56.9
parent	F	father or mother	60	45.0	79	46.8	82	72.0*	66	81.8*	72	88.9*
park	F	garden	70	28.6	69	40.6	87	57.5	67	56.7	57	64.9

WORD	DATE	GRADE	DEFINITION	AGES									
				8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
				N	%	N	%	N	%	N	%	N	%
parlor		4	room	48	33.3	70	18.6	59	27.1	66	34.8	57	28.1
parole		6	release	45	28.9	67	22.4	79	31.6	63	23.8	53	30.2
parrot		4	bird	68	33.6	71	50.7	74	64.9	67	67.2*	63	79.4*
parsley		6	plant	66	21.2	73	26.0	66	22.7	66	25.6	71	32.4*
paranip		6	vegetable	66	25.6	73	27.4	69	27.5	70	20.6	66	19.7
parson		6	minister	65	24.6	71	25.4	75	40.0	66	31.8	60	36.7
part		F	piece	49	40.6	56	50.0	72	56.9	63	71.4*	61	65.2*
partake		6	take a share	69	23.2	93	20.4	70	34.3	60	42.5	70	60.0
particle		6	bit	51	31.4	63	11.1	66	22.7	53	34.0	53	41.5
particular		6	special	65	35.4	77	23.4	76	40.6	75	42.7	66	46.5
particularly		6	especially	49	36.7	62	40.3	57	35.1	67	43.3	57	63.2
partly		F	in some measure	49	20.4	62	24.2	57	17.5	67	28.4	57	24.6
partner		F	one who shares	75	29.3	66	28.4	77	40.3	74]	45.9	72	50.3
partnership		6	joint interest	56	21.4	61	31.1	60	21.7	74	26.4	49	36.7
party		F	meeting of friends	59	32.2	66	56.1	61	73.6*	66	65.2*	63	64.1*
pass		F	go by	66	20.6	60	17.5	65	53.8	65	63.1	71	70.4*
passage		4	ball	63	23.8	62	24.4	71	19.7	62	19.5	67	25.4
passage		6	voyage	56	23.2	61	39.3	60	35.0	74	39.2	49	53.1
passenger		F	rider	60	13.2	60	11.3	65	43.1	65	52.3	71	60.6
passport		6	permit	67	23.9	70	25.7	73	31.5	72	36.9	73	56.2
past		F	gone by	66	21.2	73	49.3	66	59.1	66	62.8	71	70.4*
paste		F	glue	45	31.1	66	33.6	79	46.1	57	78.9*	51	66.6*
pasteboard		6	stiff material	60	13.2	80	21.3	65	30.6	65	43.1	71	45.1
pastel		6	soft and pale	65	46.2	77	36.4	76	30.3	75	41.3	66	36.6
pasteurized		6	heat to kill germs	49	10.4	62	27.4	57	35.1	67	43.3	57	45.6
pastime		6	amusement	49	26.5	62	41.9	57	40.4	67	52.2	57	42.1
pastor		6	minister	49	16.3	62	24.2	57	35.1	67	37.3	57	56.1

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
pasture	F	field	70	15.7	60	20.5	62	33.9	79	45.6	66	54.5
pat	F	light blow	80	23.8	85	16.5	84	26.2	79	17.7	60	21.7
patch	F	piece	68	41.2	71	33.8	74	32.4	67	40.3	63	39.7
patchwork	4	cloth sewed together	75	20.0	88	34.1	77	33.8	74	41.9	72	52.8
patent	6	certificate of invention	77	16.9	94	24.5	62	30.6	77	29.9	68	33.8
patience	6	calmness	70	30.0	66	26.1	62	29.0	79	30.4	66	46.5
patient	6	person treated by a doctor	60	36.7	63	51.8	75	42.7	79	53.2	60	40.0
path	F	route	79	11.4	75	17.3	76	35.5	63	46.2	53	64.2
pathway	6	path	56	25.0	77	40.3	79	45.6	76	50.0	47	57.4
patriot	6	lover of one's country	56	14.3	77	22.1	79	26.6	76	38.2	47	53.2
patriotic	6	loving one's country	60	20.0	63	43.4	75	52.0	79	46.6	60	56.7
patriotism	6	love of one's country	66	22.1	80	22.5	65	27.7	65	32.3	71	33.6
patrol	6	lookout	48	12.5	70	24.3	59	28.6	66	43.9	57	61.4
patrolman	6	member of a police force	60	25.0	70	42.9	79	54.4	62	57.3	36	68.4*
patter	F	quick taps	59	25.4	56	30.4	49	24.5	67	11.9	55	23.6
patty	6	shell	46	27.1	70	28.6	59	13.6	66	13.6	57	12.3
pause	6	stop	68	20.6	80	31.3	64	31.3	66	29.4	71	32.4
pave	F	cover to make level	70	28.6	69	30.4	87	35.6	67	47.8	57	36.6
pavement	F	surface	60	31.7	70	41.4	79	38.0	62	46.3	36	36.6
paw	F	foot	70	44.3	69	42.0	67	56.3	67	66.7*	57	75.4*
pawn	6	borrow on	79	21.5	76	26.3	91	33.0	64	10.9	69	24.6
pawnbroker	6	lender	65	15.4	69	23.6	69	27.5	71	30.0	66	24.2
pay	F	give money	68	29.4	80	45.0	65	78.5*	65	66.2*	71	93.0*
payment	F	that which is paid	51	31.4	63	39.7	66	57.6	53	71.7*	53	64.9*
pea	F	vegetable	60	30.0	63	47.0	75	62.7	79	62.3*	60	60.0*
peace	F	freedom from war	66	24.2	73	43.8	66	53.0	66	66.3	71	71.8*
peaceable	6	friendly	60	26.3	70	36.6	79	36.0	62	48.8	38	55.3

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
peaceful	F	quiet	61	19.7	74	25.7	85	32.9	64	46.4	78	53.0
peach	F	fruit	68	41.2	74	52.7	76	71.1*	70	60.0*	69	65.5*
peacock	4	bird	76	22.4	91	24.2	75	34.7	65	50.6	57	54.4
peak	F	top	60	26.7	63	21.7	75	18.7	79	41.6	60	41.7
peanut	F	seed	69	26.1	93	51.6	70	74.3*	60	62.5*	70	90.0*
pear	F	fruit	66	31.0	73	60.5*	66	75.8*	86	69.5*	71	65.9*
peasant	6	farmer	46	29.2	70	25.7	59	30.5	66	27.3	57	33.3
pebble	4	stone	67	26.9	83	15.7	76	34.2	64	42.9	58	44.8
pecan	6	nut	60	20.3	63	39.8	75	46.0	79	68.4*	60	63.3
peck	F	tap	65	29.2	77	29.9	76	36.2	75	44.0	68	47.1
peck	6	dry measure	70	22.9	60	15.0	56	15.5	74	25.7	67	34.3
peculiar	6	strange	58	22.4	70	24.3	58	36.2	57	45.6	56	53.6
peculiarity	6	strangeness	77	23.4	94	44.7	62	46.8	77	39.0	68	56.8
pedal	6	lever	64	23.4	72	23.6	80	22.5	76	32.9	50	20.0
peddle	6	sell	80	22.5	75	14.7	76	11.8	66	27.3	62	24.2
peddler	6	salesman	66	24.2	73	28.8	66	45.5	66	50.0	71	52.1
pedestrian	6	walker	65	27.7	71	22.5	75	20.0	66	19.7	60	30.0
peek	F	look	52	25.0	75	32.0	85	35.3	64	34.4	52	51.9
peel	F	strip off	45	28.9	67	31.3	79	44.3	63	58.7	53	58.5
peep	F	look	78	41.0	73	23.3	81	32.1	81	35.8	71	38.0
peer	6	look closely	64	26.6	72	19.4	75	18.7	81	25.9	65	32.3
peg	F	pin	49	28.6	62	24.2	57	38.6	67	26.9	57	26.3
pelican	6	bird	78	32.1	73	30.1	81	32.1	81	43.2	71	47.9
pelt	6	skin	64	23.4	72	16.7	80	25.0	76	36.6	50	36.0
pen	F	yard	63	14.3	62	19.5	71	19.7	82	30.5	67	47.8
penalize	6	punish	48	33.3	70	26.6	59	25.4	66	28.8	57	38.6

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
penalty	6	punishment	48	33.3	70	34.3	59	37.3	66	33.3	57	61.4
pencil	F	tool to write with	79	34.2	76	57.9	91	75.8*	64	78.1*	69	92.8*
penguin	6	bird	69	33.3	91	36.3	83	49.4	69	55.1	61	55.7
peninsula	6	land	70	14.3	69	23.2	67	46.3	67	44.8	57	54.4
penitentiary	6	prison	65	23.1	71	23.9	75	26.7	66	33.3	60	38.3
penknife	6	pocket knife	46	33.3	70	27.1	59	54.2	66	47.0	57	57.9
penmanship	6	handwriting	60	46.7	70	37.1	79	41.8	62	47.6	38	44.7
penniless	6	without money	45	17.8	68	22.1	79	46.5	57	59.6	51	58.8
penny	F	cent	78	43.6	79	59.5	69	75.4*	66	90.9*	68	98.5*
people	F	persons	67	37.3	70	42.9	73	69.9*	72	80.6*	73	83.6*
peppermint	F	candy	41	48.8	57	45.6	70	42.9	71	49.3	51	56.9
percentage	6	part of each hundred	49	16.3	62	32.3	57	35.1	67	25.4	57	54.4
perch	6	fish	71	35.2	96	24.5	79	22.8	65	27.7	64	39.1
perch	6	rest	41	17.1	57	26.3	70	24.3	71	18.3	51	17.6
percolate	6	drip through	44	18.2	76	18.4	88	19.3	59	23.7	55	25.5
perfect	4	having no faults	70	17.1	63	25.4	76	44.7	70	55.7	58	69.0*
perfection	6	faultless	60	16.7	70	40.0	79	54.4	62	54.9	38	65.8
perform	4	act	79	25.3	76	19.7	91	18.7	64	37.5	69	39.1
performer	6	player	64	29.7	76	32.9	70	37.1	78	32.1	60	46.7
performance	4	show	67	26.9	83	26.5	76	15.8	64	36.9	58	43.1
perfume	F	sweet smell	66	17.6	80	25.0	65	53.8	65	60.0	71	67.6*
perhaps	F	possibly	68	16.2	80	30.0	65	47.7	65	52.3	71	67.6*
period	6	position of time	60	36.7	79	36.7	82	48.8	66	71.2*	72	63.9
periscope	6	instrument	64	42.2	76	35.5	70	37.1	70	44.9	60	60.0
perk	6	lift	49	14.3	56	10.7	72	22.2	63	30.2	61	13.1

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
permanent	6	lasting	50	14.0	93	11.6	63	9.5	76	23.7	69	26.1
permissible	6	allowable	65	33.3	69	40.4	69	27.5	71	59.2	66	57.6
permit	6	written order	51	23.5	63	15.9	66	33.3	53	56.6	53	75.5*
persecute	6	treat badly	49	20.4	56	21.4	72	11.1	63	28.6	61	34.4
persecution	6	cruelty	66	19.7	73	34.2	69	33.3	70	32.9	66	40.9
persist	6	continue	78	34.6	79	25.3	69	39.1	66	36.4	68	38.2
persistence	6	determination	56	36.2	86	32.6	76	46.1	78	42.3	58	51.7
person	F	man, woman, or child	65	38.5	69	43.8	69	62.3	71	66.7*	66	90.9*
personality	6	character	45	15.6	68	19.1	79	35.4	57	42.1	51	56.9
perspiration	6	sweat	68	29.4	74	23.0	76	22.4	70	24.3	69	21.7
perspire	6	sweat	70	16.6	80	26.3	58	19.0	74	23.0	67	25.4
persuade	6	win over	75	32.0	84	16.7	87	26.4	69	34.8	76	30.3
persuasion	6	influence	65	23.1	69	28.1	69	37.7	71	47.9	66	43.9
perturbed	6	annoyed	76	15.8	91	20.9	75	24.0	85	21.2	57	36.8
pessimistic	6	gloomy	84	26.2	80	28.8	66	18.2	89	22.5	62	25.8
pest	6	annoyance	78	21.8	82	15.9	82	24.4	85	42.4	61	41.0
pester	6	annoy	52	21.2	75	21.3	65	20.0	64	31.3	52	25.0
pet	F	animal	56	42.9	77	63.6	79	74.7*	76	86.6*	47	91.5*
petal	6	part of a flower	77	35.1	94	34.0	62	37.1	77	53.2	66	55.9
petrify	6	turn into stone	68	16.2	80	22.5	64	15.6	68	16.2	71	14.1
petroleum	6	oil	60	25.0	57	17.5	66	34.8	64	29.7	53	47.2
petticoat	6	slip	49	24.5	62	27.4	57	22.8	67	19.4	57	31.6
pew	6	bench	50	26.0	68	13.2	61	18.0	60	35.0	54	35.2
phantom	6	ghost	65	21.5	61	34.4	90	25.6	67	35.8	73	32.9
phone	F	call up	61	32.8	81	49.4	77	72.7*	61	75.4*	70	66.6*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
phonograph	4	record player	45	33.3	67	37.3	79	51.9	63	68.3*	53	71.7*
photo	4	picture	65	27.7	91	30.8	69	46.4	68	64.7	64	81.3*
photograph	6	picture	58	25.9	70	45.7	58	43.1	57	61.4	56	85.7*
photographer	6	person who takes pictures	61	32.8	81	40.7	77	48.1	61	62.3	70	85.7*
phrase	6	combination of words	51	21.6	63	42.9	66	45.5	53	60.4	53	56.6
physical	6	of the body	60	28.3	83	18.1	75	29.3	79	66.4*	60	65.0
physics	6	science	84	20.2	80	32.5	66	30.3	89	50.6	62	51.6
physician	6	doctor	41	29.3	57	33.3	70	37.1	71	43.7	51	54.9
pianist	6	musician	65	29.2	61	27.9	90	32.2	67	41.8	73	42.5
pick	F	choose	45	31.1	68	38.2	79	46.1	57	63.2	51	62.7
pick	6	tool	60	35.0	70	24.3	79	6.9	82	17.1	38	13.2
picket	6	stake	66	25.6	98	31.6	66	24.2	60	38.3	84	41.7
pickle	F	vegetable	68	32.4	80	37.5	65	49.2	65	63.1	71	69.0*
picnic	F	meal	65	21.5	89	31.5	89	50.7	71	69.0*	66	63.6
pickpocket	4	thief	58	17.2	86	20.9	76	23.7	78	30.8	58	39.7
picture	F	a drawing	65	41.5	89	65.2	69	75.4*	71	90.1*	66	95.5*
piece	F	part	68	36.6	80	35.0	65	53.6	65	67.7*	71	81.7*
pier	6	landing	64	20.3	72	15.3	80	13.8	76	28.9	50	32.0
pierce	F	stab	67	29.9	83	15.7	76	15.8	84	23.8	58	22.4
pig	F	animal	60	51.7	57	68.4*	66	87.9*	64	82.8*	53	92.5*
pigeon	F	bird	58	27.6	86	33.7	76	43.4	78	53.8	58	65.5
piggy	F	pig	75	41.3	88	47.7	77	37.7	74	54.1	72	55.6
pigtail	6	braid	65	20.0	91	25.3	69	37.7	68	48.5	64	64.1
pike	6	road	68	16.2	80	27.5	65	32.3	65	40.0	71	45.1
pike	6	fish	60	20.0	70	24.3	79	24.1	82	30.5	38	23.7
pile	F	heap	51	23.5	63	46.0	66	56.1	53	60.4	53	71.7*
pile	6	beam	67	19.4	70	22.9	73	26.0	72	27.8	73	20.5
pilgrim	4	traveler	56	17.9	77	18.2	79	31.6	76	39.5	47	46.8

-187-

-187-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
pill	F	medicine	59	28.3	70	37.1	76	67.1*	64	70.3*	56	73.2*		
pillar	6	column	52	11.5	75	13.3	85	21.2	64	23.4	52	28.8		
pillow	F	cushion	50	30.0	93	36.6	63	61.9	76	67.1*	69	63.8		
pimple	6	swelling	50	20.0	93	25.8	63	17.5	76	35.5	69	31.9		
pin	F	piece of wire	61	41.0	81	42.0	85	56.5	74	70.3*	59	66.1		
pinafore	6	dress	49	34.7	69	20.3	65	16.9	79	17.7	49	18.4		
pinch	4	squeeze	65	13.8	77	20.8	76	43.4	75	38.7	68	48.5		
pine	F	tree	49	32.7	69	46.4	65	52.3	79	68.4*	49	87.8*		
pineapple	F	fruit	60	46.7	67	50.7	79	68.4*	81	70.4*	62	82.3*		
pink	F	color	64	59.4	76	61.3	70	80.0*	78	84.6*	60	90.0*		
pint	F	measure	68	20.6	80	42.5	65	50.8	65	61.5	71	70.4*		
pioneer	4	leader	66	15.2	98	25.5	66	31.8	60	45.0	84	66.7*		
pipe	F	whistle	75	24.0	84	28.6	87	33.3	69	47.8	76	46.1		
piper	6	musician	79	27.3	76	27.6	91	27.5	64	35.9	69	24.6		
piracy	6	robbery	65	18.5	89	24.7	69	29.0	71	28.2	66	42.4		
pirate	6	robber	64	28.1	76	30.3	70	38.6	73	28.2	60	55.0		
pistol	F	gun	75	25.3	84	29.3	87	33.3	69	37.7	76	52.6		
pit	F	hole	80	25.0	75	24.0	76	27.6	66	36.4	62	43.5		
pitch	F	throw	52	17.3	75	34.7	85	47.1	64	37.5	52	67.3*		
pitch	6	tar	66	12.1	98	18.4	66	21.2	60	15.0	84	26.2		
pitch	6	key	45	44.4	67	26.9	79	21.5	63	19.0	53	32.1		
pitcher	F	jug	45	20.0	67	28.4	79	36.7	63	44.4	53	49.1		
pitchfork	6	tool	74	23.0	79	25.3	77	35.1	80	40.0	57	52.6		
piteous	6	wretched	61	11.5	74	35.1	85	35.3	64	50.0	78	44.9		
pitiable	6	wretched	79	27.3	75	30.7	76	47.4	83	38.6	53	39.6		
pitiful	6	miserable	66	23.3	73	24.7	66	31.8	86	57.0	71	60.6		
pitiless	6	without mercy	66	25.8	73	32.9	69	40.6	70	37.1	66	31.8		

-133-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
ply	F	be sorry for	45	33.3	68	32.4	79	27.8	57	31.6	51	43.1
place	F	space	76	26.3	91	37.4	75	48.0	85	45.9	57	50.9
plague	6	dis ease	58	27.6	70	17.1	58	25.9	57	29.8	56	39.3
plaid	6	checks or stripes	44	18.2	76	21.1	68	31.8	59	32.2	55	56.4
plain	F	clear	58	31.0	70	30.0	58	36.2	57	56.1	56	67.9*
plain	6	flat land	49	26.5	69	27.5	65	33.8	79	40.5	49	63.3
plan	F	way of doing something	78	30.8	73	34.2	81	38.3	81	58.0	71	66.2
plane	6	flat surface	50	22.0	93	18.3	63	31.7	76	39.5	69	24.6
plane	F	airplane	63	52.4	82	54.9	71	69.0*	82	84.1*	67	94.0*
planet	6	heavenly body	61	29.5	81	27.2	77	41.6	61	41.0	70	60.0
plank	4	piece of timber	57	17.5	64	21.9	63	25.4	76	34.2	53	30.2
plant	F	living thing	58	15.5	70	41.4	58	51.7	57	64.9	56	75.0*
plantation	4	farm	49	22.4	69	36.2	65	43.1	79	48.1	49	79.6*
planter	4	farmer	60	15.0	70	44.3	79	54.4	82	63.4	38	81.6*
plastic	6	easily molded	61	23.0	74	20.4	85	42.4	64	64.1	78	70.5*
plate	F	dish	50	40.0	93	48.4	63	61.9	76	81.6*	69	79.7*
plate	6	cover with metal	52	19.2	75	36.0	85	42.4	64	51.6	52	65.4
plateau	6	plain	64	34.4	72	31.9	75	26.7	81	45.7	65	56.9
platform	F	raised flooring	69	40.6	76	27.6	64	35.9	77	37.7	52	42.3
platter	F	dish	60	30.0	83	14.5	75	22.7	79	26.6	60	23.3
play	F	few	65	40.0	89	61.8	69	89.9*	71	93.0*	66	90.9*
player	F	one who takes parts on stage	59	27.1	70	38.6	76	39.5	64	48.4	56	58.9
playful	4	full of fun	64	35.9	72	54.2	75	65.3	81	67.9*	65	84.6*
playground	F	place for play	66	27.3	73	63.0	66	65.2	86	79.1*	71	84.5*
playhouse	F	theater	75	13.3	88	36.4	77	37.7	74	62.2	72	63.9
playmate	F	friend	60	30.0	79	43.0	82	50.0	66	63.6	72	63.9
plaything	F	toy	49	57.1	62	75.8*	57	73.7*	67	88.1*	57	91.2*

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
playwright	6	author	59	20.3	56	19.6	49	8.2	67	26.9	55	25.5		
plead	6	beg	41	36.6	57	38.6	70	21.4	71	31.0	51	41.2		
pleasant	F	nice	66	25.8	73	37.0	66	45.5	86	61.6	71	74.6*		
pleasantness	6	loveliness	65	30.0	69	32.6	69	43.5	71	54.9	66	50.0		
please	F	make happy	58	43.1	70	48.6	58	58.6	57	63.2	56	78.6*		
pleasing	4	lovely	73	23.3	71	36.6	73	43.8	72	51.4	67	46.3		
pleasure	F	joy	60	26.7	70	32.9	79	39.2	62	53.7	38	68.4*		
pleasurable	6	agreeable	60	16.7	63	36.1	75	42.7	79	70.9*	60	60.0		
pledge	4	promise	44	18.2	76	40.8	88	52.3	59	62.7	55	76.4*		
plentiful	6	more than enough	56	12.5	77	27.3	79	27.8	76	32.9	47	59.6		
plenty	F	all that one needs	64	28.1	72	25.0	75	28.0	61	42.0	65	38.5		
pliers	4	tool	49	26.5	62	8.1	57	19.3	67	34.3	57	50.9		
plot	6	secret plan	57	26.3	64	29.7	63	41.3	76	32.9	53	50.9		
plot	6	piece of ground	49	18.4	62	35.5	57	40.4	67	29.9	57	35.1		
plow	F	dig	76	32.9	87	40.2	73	45.2	78	47.4	63	58.7		
plowman	6	farmer	71	49.3	98	43.9	79	46.8	65	53.8	64	65.6		
plug	F	cork	79	34.2	76	31.6	91	38.5	64	26.6	69	37.7		
pluck	6	pick	60	38.3	70	47.1	79	21.5	62	26.8	38	10.5		
plum	F	fruit	64	35.9	72	55.6	75	64.0	61	75.3*	65	89.2*		
plumber	6	man whose work is putting in pipes	76	19.7	87	32.2	73	49.3	70	60.3	63	77.6*		
plumbing	6	pipes	73	30.1	71	28.2	73	37.0	72	47.2	67	58.2		
plume	6	feather	60	28.3	79	12.7	82	13.4	66	18.2	72	13.9		
plump	4	fat	60	30.0	79	26.6	82	26.8	66	40.9	72	37.5		
plunge	6	leap	45	22.2	67	28.4	79	39.2	63	30.2	53	37.7		
plural	6	more than one	63	30.2	82	19.5	71	35.2	62	50.0	67	62.7		
plus	4	added to	57	29.8	64	42.2	63	34.9	76	60.5	53	69.8*		

-190-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	Z	N	Z	N	Z	N	Z	N	Z		
pneumonia	6	disease	64	18.8	72	20.8	75	24.0	81	43.2	65	47.7		
poach	6	cook	49	40.8	62	21.0	57	17.5	67	20.9	57	22.8		
pocket	7	small bag	68	30.9	80	42.5	65	70.0*	65	80.0*	71	87.3*		
pocketbook	7	purse	65	27.7	89	42.7	69	55.1	71	76.1*	66	72.7*		
pod	6	shell	68	14.7	80	18.0	64	23.4	66	19.1	71	22.5		
poetry	6	poems	68	26.5	80	33.6	65	33.6	65	58.5	71	71.8*		
point	7	sharp end	65	24.6	89	32.6	69	44.9	71	66.2	66	50.0		
poisonous	6	harmful	70	20.6	69	27.5	87	49.4	67	64.2	57	70.2*		
poke	7	push	68	35.3	80	27.5	65	30.6	65	35.4	71	60.6		
poker	6	rod	66	28.8	73	24.7	69	11.6	70	10.0	66	7.6		
polar	6	near the north pole	80	42.5	75	52.0	76	51.3	66	63.6	62	66.1		
pole	7	piece of wood	45	22.2	68	25.0	79	38.0	57	31.6	51	54.9		
police	7	person whose duty is to keep order	80	27.5	75	29.3	76	38.2	66	57.6	62	75.0*		
police	7	officer	65	47.7	91	67.0*	69	78.3*	68	88.2*	64	93.8*		
police	6	plan	64	31.3	72	26.4	75	18.7	81	21.0	65	23.1		
polish	7	make smooth	65	30.6	71	43.7	75	57.3	66	65.2	60	70.0*		
political	6	having to do with government	78	17.9	82	26.8	82	32.9	85	57.6	61	68.9*		
politician	6	person in politics	70	27.1	88	31.8	62	33.9	79	53.2	66	66.7*		
politics	6	science of government	64	26.6	72	19.4	75	17.3	81	32.1	65	30.8		
polka	6	dance	64	32.0	72	27.8	75	20.0	81	33.3	65	35.4		
pollen	6	powder	64	32.8	72	40.3	75	46.7	81	27.2	65	41.5		
pond	7	body of water	78	42.3	79	49.4	69	68.1*	66	78.8*	68	75.0*		
pony	7	horse	57	52.6	64	73.4*	63	79.4*	76	82.9*	53	92.5*		
poodle	6	dog	48	37.5	70	45.7	59	33.9	66	62.1	57	75.4*		
pool	7	body of water	58	48.3	70	64.3	58	72.4*	57	87.7*	56	91.1*		
pool	4	game	52	30.6	75	32.0	65	43.5	64	59.4	52	84.6*		

-191-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N.	Z.	N.	Z.	N.	Z.	N.	Z.	N.	Z.		
poor	7	having few things	49	18.4	62	35.5	57	49.1	67	56.7	57	73.7*		
poorhouse	6	home for the poor	80	36.3	85	44.7	84	52.4	79	78.5*	60	83.3*		
popcorn	7	a kind of corn	65	38.5	89	49.4	69	63.8	71	62.0	66	83.3*		
pope	6	head of the Catholic church	75	22.7	88	27.3	77	41.6	74	52.7	72	54.2		
poppy	4	flower	51	25.5	63	30.2	66	37.9	53	39.6	53	45.3		
popular	4	well-liked	56	21.4	77	32.5	79	36.7	76	57.9	47	78.7*		
popularity	6	being liked by most people	59	20.3	96	37.5	45	45.9	67	46.3	55	60.0		
populated	6	inhabited	70	22.9	69	31.9	87	41.4	67	37.3	57	40.4		
population	6	inhabitants	65	24.6	89	34.8	69	49.3	71	46.5	66	62.1		
porcupine	6	animal	45	26.7	67	23.9	79	32.9	63	54.0	53	47.2		
page	6	opening	59	28.8	56	17.9	49	26.5	67	19.4	55	34.5		
pork	7	meat	60	35.0	79	53.2	82	68.3*	66	78.6*	72	80.6*		
porridge	6	food	60	30.0	70	35.7	79	27.8	82	29.3	38	18.4		
port	4	harbor	78	12.8	79	19.0	69	44.9	66	51.5	68	70.6*		
portable	6	movable	66	25.8	73	27.4	69	33.3	70	42.9	66	50.0		
porter	6	carrier	78	24.4	82	25.6	82	30.5	85	40.0	61	49.2		
porcholo	6	opening	45	27.1	70	27.1	50	32.2	66	31.8	57	31.6		
portion	6	part	75	8.0	86	14.3	87	23.0	69	18.8	76	26.3		
portrait	6	picture	65	23.1	77	9.1	76	30.2	75	34.7	68	25.0		
positive	6	sure	52	19.2	75	16.0	85	23.5	64	26.6	52	25.0		
possess	6	own	60	16.7	70	21.4	79	17.7	82	32.9	38	34.2		
possession	6	ownership	60	51.7	70	48.6	79	41.8	82	51.2	38	52.6		
possession	6	holding	61	21.3	81	25.9	77	19.5	61	23.0	70	44.3		
possessive	6	showing possession	60	26.7	70	28.6	79	48.1	82	46.3	38	50.0		
possessor	6	owner	65	27.7	77	14.3	76	28.9	75	50.7	60	22.1		
possible	7	can be	50	16.0	93	25.8	63	44.4	76	63.2	69	59.4		
possibly	6	perhaps	65	46.2	61	42.6	90	40.0	67	40.3	73	60.3		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
possibility	6	being possible	70	37.1	69	40.6	87	42.5	67	47.8	57	56.1
possum	6	animal	50	12.0	60	23.5	61	21.3	60	31.7	54	40.7
post	F	pole	70	37.1	63	33.3	76	26.9	70	30.0	58	34.5
postage	F	amount paid on mail	49	20.4	56	33.9	72	43.1	63	66.7*	61	75.4*
postal	6	something to do with mail	71	32.4	87	19.5	72	47.2	80	55.0	56	160.7
postcard	6	card for sending a message	66	31.0	96	29.6	66	47.0	60	70.0*	84	70.2*
poster	6	notice	41	14.6	57	21.1	70	18.6	71	39.4	51	47.1
postman	F	mailman	50	42.0	66	56.8	61	83.6*	60	88.3*	54	88.9*
postmaster	4	person in charge of a post office	49	42.9	56	50.0	72	51.4	63	65.1	61	77.0*
postpone	6	delay	50	22.0	68	16.2	61	6.6	60	25.0	54	31.5
postscript	6	addition to a letter	65	46.2	89	36.0	69	47.8	71	71.8*	66	57.6
posture	6	way of holding the body	61	41.0	74	17.6	85	29.4	64	39.1	78	47.4
posy	6	flower	60	46.7	70	37.1	75	30.4	82	32.9	38	39.5
pot	F	dish	63	28.6	62	37.8	71	53.5	32	54.9	67	65.7
potato	F	vegetable	51	49.0	63	81.0*	66	52.4*	53	98.1*	53	96.2*
potter	6	person who makes things out of clay	80	25.0	75	28.0	76	26.3	66	34.8	62	46.0
pouch	6	bag	64	28.1	76	32.9	70	22.9	70	26.2	60	40.0
poultry	6	fowl	45	15.6	67	22.4	79	30.4	63	26.6	53	45.3
pounce	6	jump suddenly	71	39.4	90	32.7	79	34.2	65	32.3	64	21.9
pound	F	a measure	77	23.4	94	45.7	62	48.4	77	67.5*	68	79.4*
pound	6	British money	41	19.5	57	21.1	70	20.0	71	16.9	51	33.3
pour	F	cause to flow	48	27.1	70	25.7	59	42.4	66	63.6	57	61.4
pout	6	push out the lips	49	28.6	62	35.5	57	21.1	67	26.9	57	40.4
powdery	6	dusty	52	21.2	75	36.0	85	30.6	64	23.4	52	36.5
power	F	might	65	13.0	89	18.0	69	24.6	71	45.1	66	33.3
powerful	F	strong	60	26.7	79	36.7	82	56.1	66	74.2*	72	80.6*
powerless	4	weak	70	20.6	63	23.8	76	43.4	70	58.6	58	70.7*

WCED	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
practice	4	action done many times	44	25.0	76	26.3	88	48.9	59	57.6	55	74.5*
prairie	6	land	70	21.4	63	19.0	76	36.8	70	37.1	58	48.3
praise	F	speck well of	75	33.3	64	35.7	87	26.4	69	37.7	76	44.7
praiseworthy	6	deserving approval	45	31.1	68	30.9	79	43.0	57	40.4	51	33.3
prance	6	dance	52	25.0	75	32.0	85	42.4	64	17.2	52	23.1
prank	6	trick	70	27.1	80	23.8	58	31.0	74	21.6	67	25.4
pray	F	ask God	45	57.8	60	73.5*	79	79.7*	57	86.0*	51	86.3*
preach	6	speak	52	25.0	75	28.0	85	29.4	64	35.9	52	50.0
preacher	4	minister	50	18.0	68	32.4	61	49.2	60	61.7	54	64.6
precaution	6	care beforehand	51	17.6	63	20.6	66	18.2	53	24.5	53	37.7
precious	6	of great value	68	23.5	74	33.8	76	36.8	70	42.9	69	49.3
predict	6	tell beforehand	79	24.1	76	23.7	91	24.2	64	34.4	69	36.2
prediction	6	forecast	68	27.9	74	33.8	76	32.9	70	31.4	69	34.8
prefer	6	like better	68	26.5	80	17.5	64	31.3	60	22.1	71	29.6
preference	6	first choice	69	27.5	76	22.4	64	21.9	77	37.7	52	42.3
pregnant	6	with child	70	25.7	69	15.9	87	27.6	67	31.3	57	52.6
prejudice	6	opinion formed beforehand	80	30.0	65	30.6	84	35.7	79	40.5	60	30.0
prehistoric	6	before histories were written	65	36.5	71	39.4	75	26.7	66	36.4	60	41.7
prepaid	6	paid in advance	70	27.1	63	28.6	76	42.1	70	37.1	58	50.0
preparation	6	making ready	65	15.4	61	11.5	90	24.4	67	34.3	73	49.3
preparatory	6	making ready	65	15.4	91	17.6	69	18.8	68	35.3	64	32.8
prepare	F	get ready	49	32.7	56	28.6	72	29.2	63	39.7	61	57.4
prescribe	6	order	65	18.5	71	19.7	75	18.7	66	15.2	60	20.0
prescription	6	order	76	11.8	67	13.8	73	13.7	78	23.1	63	27.0
present	F	now	68	30.9	80	25.0	65	32.3	65	32.3	71	52.1

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
presentable	6	fit to be seen	44	9.1	76	9.2	88	12.5	59	16.9	55	25.5		
preservation	6	keeping safe	75	24.0	84	27.4	87	25.3	69	43.5	76	42.1		
preserve	6	protect	74	33.8	79	40.5	77	57.1	80	66.3	57	66.7*		
preserver	6	rescuer	50	28.0	93	19.4	63	39.7	76	42.1	69	40.6		
preserves	6	fruit cooked with sugar	45	40.0	68	26.5	79	32.9	57	29.8	51	23.5		
presidency	6	office of president	70	20.0	88	34.1	62	51.6	79	59.5	66	66.7*		
president	6	chief	46	18.8	70	40.0	59	37.3	66	63.6	57	75.4*		
press	4	newspapers	50	30.0	68	38.2	61	50.8	60	48.3	54	66.7*		
pressure	6	weight	49	22.4	62	27.4	57	28.1	67	28.4	57	64.9		
presto	6	quickly	78	26.9	79	30.4	69	31.9	66	30.3	68	35.3		
presume	6	suppose	59	18.6	70	37.1	76	59.2	64	51.6	56	53.6		
pretend	4	make believe	78	24.4	73	21.9	81	32.1	61	39.5	71	50.7		
pretty	F	pleasing	69	27.5	93	34.4	70	55.7	80	51.3	70	58.6		
prevent	6	keep from happening	48	25.0	70	25.7	59	33.9	66	50.0	57	66.7*		
preview	6	early view	49	12.2	56	17.9	72	27.8	63	50.8	61	59.0		
previous	6	coming before	59	35.6	56	30.4	49	36.7	67	28.4	55	29.1		
prey	6	animal hunted for food	70	28.6	95	21.1	72	25.0	77	26.0	61	44.3		
prickly	6	thorny	65	29.2	91	35.2	69	27.5	68	57.4	64	57.8		
priest	6	minister	67	15.4	83	30.1	76	44.7	84	57.1	58	75.9*		
primary	6	first	44	22.7	76	28.9	88	36.4	59	30.5	55	50.9		
primrose	6	flower	84	36.9	80	33.8	66	33.3	89	27.0	62	35.5		
prince	F	son of a king or queen	84	28.6	80	43.8	66	50.0	89	65.2	62	72.6*		
princely	6	royal	50	22.0	93	25.8	63	46.0	76	63.2	69	47.8		
princess	F	daughter of a king or queen	70	24.3	63	39.7	76	59.2	70	64.3	58	87.9*		
principal	6	most important	61	16.4	74	32.4	85	50.6	64	59.4	78	70.5*		

-195-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
principle	6	rule	70	20.0	63	14.3	76	26.3	70	35.7	58	53.4		
print	F	words on paper	49	28.6	56	44.6	72	43.1	63	65.1	61	82.0*		
printer	6	person whose work is setting type	49	34.7	56	17.9	72	45.0	63	61.9	61	78.7*		
prison	F	jail	50	20.0	68	48.5	61	54.1	60	61.7	54	63.3*		
prisoner	4	criminal	68	29.4	80	32.5	65	46.2	65	52.3	71	63.4		
privacy	6	being away from others	75	25.3	84	22.6	87	25.3	69	29.0	76	28.9		
private	6	personal	50	32.0	66	22.1	61	36.1	60	38.3	54	48.1		
private	6	soldier	68	22.1	80	18.8	64	28.1	68	25.0	71	39.4		
prize	F	reward	50	20.0	68	35.3	61	44.3	60	56.7	54	75.9*		
probable	6	-likely	59	28.0	56	33.9	49	18.4	67	23.9	55	32.7		
probably	6	likely	78	16.7	79	17.7	69	34.8	66	28.8	68	48.5		
problem	4	question	51	29.4	63	34.9	66	60.6	53	69.8*	53	73.6*		
proceed	6	go on	73	27.4	71	22.5	73	23.3	72	22.2	67	35.8		
process	6	course of action	49	26.5	62	33.9	57	29.8	67	50.7	57	68.4*		
procession	6	parade	76	15.4	82	24.4	82	26.8	85	28.2	61	31.1		
produce	6	make	78	26.9	82	13.4	82	18.3	85	45.9	61	49.2		
produce	6	vegetables	67	50.7	70	40.0	73	23.3	72	40.3	73	39.7		
producer	6	maker	68	20.6	71	22.5	74	29.7	67	41.8	63	58.7		
productive	6	profitable	67	46.3	70	45.7	73	58.9	72	48.6	73	63.0		
profession	6	occupation	69	26.1	93	33.3	70	28.6	80	37.5	70	38.6		
professional	6	having to do with a profession	79	46.8	75	36.0	76	38.2	83	50.6	53	52.8		
professor	4	teacher	44	18.2	76	19.7	88	23.9	59	37.3	55	49.1		
profit	6	gain	49	26.5	69	10.1	65	15.4	79	22.8	49	34.7		
profitable	6	giving gain	61	23.0	74	18.9	85	15.3	64	20.3	78	23.1		

-196-

-196-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
program	4	list of events	73	15.1	71	22.5	73	32.9	72	58.3	67	56.7		
progress	6	development	57	36.8	64	42.2	63	54.0	76	57.9	53	66.0		
progressive	6	advancing	65	41.5	91	52.7	69	43.5	68	61.8	64	67.2*		
prohibit	6	forbid	44	15.9	76	27.6	88	36.4	59	42.4	55	43.6		
project	6	plan	60	20.0	57	19.3	66	22.7	64	20.3	53	35.8		
promenade	6	walk	65	26.2	77	24.7	76	17.1	75	18.7	68	10.3		
promote	6	raise	49	20.4	69	14.5	65	29.2	79	21.5	49	38.8		
promotion	6	advance	57	14.0	64	15.6	63	17.5	76	25.0	53	34.0		
pronoun	6	word used instead of a noun	49	10.2	56	16.1	72	33.3	63	46.0	61	59.0		
pronounce	6	speak	60	26.7	83	27.7	75	18.7	79	54.4	60	45.0		
pronunciation	6	making sounds	58	29.3	86	23.3	76	23.7	78	26.9	58	43.1		
prosperous	6	successful	61	21.3	74	27.0	85	24.7	64	32.8	78	50.0		
protect	F	guard	75	28.0	84	33.3	87	44.8	69	59.4	76	61.8		
protection	4	being kept from harm	69	18.8	93	23.7	70	32.9	80	50.0	70	64.3		
proof	4	way of showing truth	68	16.2	80	25.0	69	30.4	70	32.9	59	52.5		
prop	6	support	49	36.7	56	37.5	72	45.8	63	49.2	61	45.9		
proper	F	correct	49	10.2	56	23.2	72	31.9	63	46.0	61	65.6		
property	6	things owned	49	22.4	62	12.9	57	17.5	67	26.9	57	49.1		
proposal	6	offer of marriage	67	17.9	70	18.6	73	27.4	72	22.2	73	28.8		
propose	6	make offer of marriage	70	27.1	88	17.0	62	8.1	79	17.7	66	9.1		
prospect	6	thing looked forward to	57	26.3	64	18.8	63	25.4	76	32.9	53	32.1		
prospector	6	miner	64	14.1	72	13.9	75	18.7	81	25.9	65	29.2		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
proud	F	feeling pleasure	49	22.4	56	42.9	72	47.2	63	68.3*	61	82.0*		
prove	F	show that a thing is right	70	27.1	69	26.1	87	41.4	67	59.7	57	80.7*		
provide	6	supply	56	17.9	77	24.7	79	24.1	76	35.5	47	46.8		
provoke	6	make angry	69	21.7	91	17.6	83	19.3	69	26.1	61	24.6		
prowl	6	secretly hunting	69	14.5	76	19.7	64	26.6	77	31.2	52	28.8		
prune	F	plum that is dried	45	28.9	67	38.8	79	46.8	63	57.1	53	69.8*		
prune	6	cut off	58	37.9	70	17.1	58	13.8	57	29.8	56	10.7		
pry	6	raise by force	75	34.7	80	19.3	77	33.8	74	27.0	72	26.4		
public	F	of the people	75	28.0	84	27.4	87	43.7	69	62.3	76	63.2		
publicity	6	brought to public notice	61	24.6	81	22.2	85	21.2	74	35.1	59	50.8		
publish	6	print	71	19.7	98	28.6	79	27.8	65	35.4	64	48.4		
publisher	6	company whose business is to produce books	52	36.5	75	38.7	85	31.8	64	51.6	52	71.2*		
pull	F	draw	49	18.4	56	21.4	72	27.8	63	38.1	61	45.9		
pulley	6	wheel	75	33.3	88	37.5	77	39.0	74	54.1	72	50.0		
pulpit	6	platform	75	33.3	88	36.4	77	32.5	74	29.7	72	36.1		
pulse	6	beating of the heart	68	30.9	71	29.6	74	25.7	67	35.8	63	42.9		
pump	F	machine	49	18.4	69	31.9	65	41.5	79	57.0	49	79.6*		
pumpkin	F	fruit	49	42.9	56	53.6	72	59.7	63	76.2*	61	88.5*		
punch	F	hit	45	20.0	68	22.1	79	31.6	57	49.1	51	60.8		

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
punctuate	6	mark	49	26.5	56	23.2	72	22.2	63	27.0	61	41.0
punctuation	6	marks	64	20.3	76	25.0	70	22.9	78	26.9	60	51.7
puncture	6	make a hole	69	29.0	76	23.7	64	29.7	77	14.3	52	32.7
punishable	6	deserving punishment	51	21.5	63	33.3	66	36.4	53	60.4	53	75.5*
puppy	F	young dog	63	58.7	82	70.7*	71	78.9*	62	85.4*	67	98.5*
purchase	6	act of buying	65	18.5	71	21.1	75	28.0	66	42.4	60	46.7
purchaser	6	buyer	65	35.4	71	21.1	75	29.3	66	39.4	60	43.3
pure	F	clean	44	20.5	76	26.3	88	19.3	59	40.7	55	45.5
purify	6	cleansc	64	20.3	76	18.4	70	11.4	78	25.6	60	31.7
purity	6	freedom from evil	64	17.2	72	19.4	80	28.8	76	34.2	50	30.0
purple	F	color	51	39.2	63	74.6*	66	92.4*	53	92.5*	53	88.7*
purplish	6	somewhat purple	65	21.5	71	45.1	75	52.0	66	54.5	60	53.3
purposefully	6	deliberately	67	25.4	70	27.1	73	47.9	72	47.2	73	45.2
purse	F	bag	67	47.8	70	60.0	73	57.5	72	66.7*	73	74.0*
pursuit	6	chase	78	21.8	79	19.0	69	21.7	66	21.2	68	35.3
push	F	move against	59	37.3	70	44.3	76	71.1*	64	75.0*	56	73.2*
pussy	F	cat	70	35.7	63	60.3	76	59.2	70	65.7	58	77.6*
put	F	place	61	16.4	74	37.8	85	42.4	64	48.4	78	71.8*
pyramid	6	tomb	75	34.7	88	28.4	77	22.1	74	25.7	72	40.3

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
quail	6	bird	80	33.8	85	28.2	84	40.5	79	43.0	60	60.0		
quaint	6	strange	59	10.2	70	15.7	76	30.3	64	23.4	56	30.4		
qualification	6	fitness	67	28.4	70	38.6	73	35.6	72	29.2	73	35.6		
qualify	6	make fit	50	32.0	68	27.9	61	29.5	60	30.0	54	35.2		
quality	6	feature	78	17.9	82	24.4	82	19.5	85	18.8	61	26.2		
quantity	6	amount	67	16.4	70	21.4	73	21.9	72	29.2	73	41.1		
quarantine	6	keep away	70	31.4	69	30.4	87	25.3	67	31.3	57	21.1		
quarrel	6	fight	56	25.0	77	22.1	79	29.1	76	31.6	47	44.7		
quarrelsome	6	fond of fighting	41	9.3	57	35.1	70	37.1	71	45.1	51	58.8		
quart	F	a measure	75	28.0	86	30.7	77	49.4	74	62.2	72	66.7*		
quarter	F	one fourth	78	25.6	73	30.1	81	55.6	81	56.8	71	70.4*		
quarterback	6	sportsman	80	28.3	85	42.4	84	41.7	79	38.0	60	66.7*		
quartet	6	group of four	41	14.6	57	33.3	70	32.9	71	49.3	51	52.9		
queen	F	wife of a king	70	21.4	88	50.0	62	77.4*	79	82.3*	66	93.9*		
queenly	6	royal	70	12.9	63	12.7	76	21.1	70	34.3	58	53.4		
queer	F	strange	56	30.4	61	34.4	60	31.7	74	48.6	49	77.6*		
question	F	thing asked	64	34.4	72	33.3	80	66.3	76	81.6*	50	80.0*		
quick	F	fast	76	32.9	87	44.8	73	56.2	78	75.6*	63	84.1*		
quickly	F	fast	68	45.6	80	48.8	69	52.2	70	72.9*	59	78.0*		
quickness	6	speed	65	18.5	91	19.8	69	37.7	68	64.7	64	64.1		
quicksand	4	wet sand	48	16.7	70	35.7	59	49.2	66	54.5	57	66.7*		
quicksilver	6	metal	64	21.9	72	26.4	75	28.0	81	54.3	65	55.4		
quiet	F	no sound	66	34.8	73	37.0	69	56.5	70	68.6*	66	75.8*		
quietness	6	silence	70	22.9	88	23.9	62	43.5	79	48.1	66	62.1		
quill	6	feather	56	25.0	77	22.1	79	24.1	76	28.9	47	27.7		
quilt	F	cover for a bed	30	27.5	75	20.0	76	26.3	66	19.7	62	30.6		
quilt	F	stop	65	21.5	91	29.7	69	46.4	68	69.1*	64	81.3*		

-200-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
quite	F	very	48	27.1	70	27.1	59	35.6	66	31.8	57	47.4
quiver	6	case to hold arrows	41	22.0	57	28.1	70	20.0	71	25.4	51	17.6
quiver	6	snake	57	20.1	64	6.3	63	17.5	76	18.4	53	24.5
quote	6	repeat exactly	76	18.4	87	25.3	73	27.4	70	26.9	63	27.0
quotient	6	a number	65	21.5	71	19.7	75	30.7	66	33.3	60	48.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
rabbit	F	animal	78	47.4	79	63.3	69	76.8*	66	93.9*	68	95.6*
rabbi	6	teacher of religion	59	22.0	70	28.6	76	32.9	64	28.1	56	39.3
raccoon	F	animal	71	45.1	98	55.1	79	62.0	65	83.1*	64	89.1*
rabies	6	disease	68	17.6	80	23.8	69	23.2	70	28.6	59	44.1
race	F	run	59	49.2	70	58.6	76	76.3*	64	90.6*	56	85.7*
racer	6	runner	59	30.5	56	60.7	49	73.5*	67	68.7*	55	69.1*
rack	F	frame	70	30.0	69	33.3	87	37.9	67	49.3	57	50.9
racket	6	loud noise	78	19.2	79	24.1	69	27.5	66	28.8	68	22.1
radar	6	instrument for determining distance	66	45.5	98	33.7	66	42.4	60	36.7	84	53.6
radiance	6	brightness	64	40.6	76	22.4	70	32.9	78	33.3	60	31.7
radiant	6	bright	70	35.7	69	23.2	87	26.4	67	20.9	57	38.6
radiate	6	shine	65	18.5	61	23.0	90	23.3	67	31.3	73	21.9
radioactive	6	give off rays	70	25.7	69	31.9	87	32.2	67	47.8	57	50.9
radish	F	a root	59	25.4	70	32.9	76	48.7	64	59.4	56	39.3
raft	6	floating platform	69	34.8	93	28.0	70	38.6	80	43.8	70	54.3
rag	F	piece of cloth	65	26.2	71	36.6	75	57.3	66	59.1	60	80.0*
rage	6	anger	67	20.9	70	28.6	73	32.9	72	38.9	73	45.2
ragged	6	torn	80	37.5	85	31.8	84	38.1	79	36.7	60	56.7
ragtime	6	jazz	59	37.3	70	18.6	76	27.6	64	29.7	56	32.1
raid	6	attack	68	14.7	71	18.3	74	23.0	67	35.8	63	52.4
rad 1	F	bar	65	23.1	71	18.3	75	40.0	66	36.4	60	46.7
railroad	F	train	67	38.8	70	54.3	73	76.7*	72	93.1*	73	93.2*
railway	F	railroad	49	26.5	62	62.9	57	75.4*	67	77.6*	57	91.2*
raiment	6	clothing	58	31.0	86	32.6	76	30.3	78	26.9	58	27.6
rain	F	water falling	66	31.8	73	64.4	66	77.3*	86	87.2*	71	85.9*
rainbow	F	bow of colors	66	30.5	73	57.5	66	68.2*	86	74.4*	71	83.1*
rainfall	6	shower	49	26.5	69	40.6	65	50.8	79	62.0	49	77.6*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
rainy	F	wet	71	43.7	96	55.1	79	63.3	65	61.5*	64	93.8*
raise	F	lift	65	21.5	89	19.1	69	40.6	71	69.0*	66	62.1
raisin	F	dried grape	67	23.9	70	42.9	73	47.9	72	69.4*	73	78.1*
rakc	F	tool	41	29.3	57	35.1	70	34.3	71	50.7	51	60.8
rally	6	bring together	41	14.6	57	10.5	70	28.6	71	35.2	51	45.1
ram	6	sheep	51	25.5	63	9.5	66	42.4	53	32.1	53	47.2
ram	F	run into	70	24.3	69	29.0	87	36.8	67	44.8	57	40.4
ramrod	6	rod for cleaning a gun	64	23.4	72	25.0	80	36.3	76	40.8	50	54.0
ranch	F	farm	64	32.8	72	27.8	80	62.5	76	59.2	50	76.0*
rancher	6	farmer	64	40.6	72	44.4	80	63.8	76	65.8	50	76.0*
range	6	line of mountains	49	24.5	56	10.7	72	34.7	63	33.3	61	57.4
ranger	6	warden	65	29.2	91	29.7	69	29.0	66	29.4	64	51.6
rank	6	put in order	64	31.3	72	22.2	75	30.7	81	40.7	65	50.8
ransom	6	price	70	15.7	95	23.2	72	27.8	77	24.7	61	29.5
rap	F	a blow	44	27.3	76	21.1	88	20.5	59	20.3	55	23.6
rapid	6	swift	70	25.7	69	26.1	87	36.8	67	47.8	57	64.9
rapidly	F	quickly	70	21.4	69	17.4	87	43.7	67	62.7	57	63.2
rapidity	6	speed	69	17.4	93	21.5	70	28.6	80	43.8	70	51.4
rare	6	not usually found	68	23.5	80	13.8	65	29.2	65	44.6	71	33.8
rascal	6	bad person	69	18.8	93	22.6	70	38.6	80	32.5	70	40.0
rash	6	spots on the skin	59	16.9	56	25.0	49	30.6	67	31.3	55	47.3
rasp	6	harsh sound	60	26.7	67	31.3	79	34.2	81	24.7	62	32.3
raspberry	6	fruit	44	31.8	76	36.8	88	59.1	59	74.6*	55	72.7*
rat	F	animal	69	33.3	93	58.1	70	75.7*	80	66.3*	70	91.4*

WORD	DALE GRADE	DEFINITION	AGES									
			6 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
rate	F	amount	80	41.3	75	32.0	76	26.3	66	36.4	62	51.6
rather	F	more or less	80	26.3	75	32.0	76	35.5	66	37.9	62	61.3
rattle	F	short, sharp sounds	41	17.1	57	28.1	70	44.3	71	49.3	51	52.9
rattle	6	confuse	69	17.4	91	29.7	83	32.5	69	43.5	61	34.4
rattlesnake	6	snake	70	26.9	79	16.5	69	39.1	66	34.8	68	44.1
rave	6	talk wildly	77	22.1	94	20.2	62	25.8	77	32.5	68	29.4
raven	6	bird	80	32.5	75	17.3	76	18.4	66	16.7	62	27.4
ravenous	6	hungry	78	38.5	73	24.7	81	13.6	81	25.9	71	26.8
ravine	6	valley	49	18.4	62	24.2	57	31.6	67	29.9	57	29.8
raw	F	not cooked	79	31.6	76	31.6	91	36.3	64	46.9	69	59.4
rawhide	6	skin of cattle	78	26.9	82	26.8	82	28.0	85	43.5	61	59.0
ray	F	beam of light	69	18.8	91	16.5	83	32.5	69	47.8	61	65.6
razor	6	tool to shave with	49	26.5	62	22.6	57	19.3	67	37.3	57	56.1
reach	F	get to	49	22.4	62	35.5	57	38.6	67	49.3	57	61.4
react	6	respond	73	37.0	71	33.8	73	56.2	72	45.8	67	55.2
reaction	6	response	49	26.5	62	35.5	57	28.1	67	37.3	57	29.8
read	F	get the meaning of	68	29.4	71	35.2	74	60.8	67	77.6*	63	81.0*
reader	F	one who reads	41	22.0	57	40.4	70	34.3	71	57.7	51	66.7*
readily	6	quickly	48	35.4	70	42.9	59	50.8	66	54.5	57	54.4
readiness	6	preparation	80	27.5	85	44.7	84	53.6	79	63.3	60	71.7*
ready	F	prepared	78	28.2	73	41.1	81	51.9	81	53.1	71	56.3
real	F	true	78	39.7	73	41.1	81	63.0	81	63.0	71	74.6*
really	F	truly	57	42.1	64	34.4	63	55.6	76	53.9	53	69.8*
realization	6	understanding	64	31.3	72	37.5	75	38.7	81	46.9	65	53.8
realize	6	understand	67	28.4	83	31.3	76	27.6	84	44.0	58	72.4*
realtor	6	broker	49	34.7	62	16.1	57	5.3	67	11.9	57	14.0
reap	F	cut	70	27.1	69	14.5	87	19.5	67	26.9	57	28.1

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
reaper	6	machine	49	20.4	62	30.6	57	26.3	67	25.4	57	30.6		
rear	F	back	78	14.1	79	21.5	69	24.6	66	37.9	68	63.2		
rear	6	bring up	67	34.3	70	31.4	73	19.2	72	19.4	73	16.4		
rearrange	4	reorganize	59	39.0	70	30.0	76	36.8	64	39.1	56	46.2		
reason	F	cause	61	14.3	81	27.2	77	19.5	61	36.1	70	62.9		
reasonable	6	sensible	70	32.9	69	36.2	87	51.7	67	53.7	57	59.6		
rebel	6	person who fights against authority	66	33.3	73	34.2	69	40.6	70	44.3	66	56.1		
rebel	6	fight against authority	54	27.3	86	26.7	73	42.5	77	33.8	63	61.9		
rebound	6	spring back	64	18.8	72	22.2	80	25.0	76	35.5	50	34.0		
rebuild	F	make over	49	40.8	62	22.6	57	31.6	67	50.7	57	56.1		
recall	6	withdraw	64	28.1	72	27.8	80	21.3	76	35.5	50	36.0		
recapture	6	get back	54	27.8	86	27.9	73	21.9	77	22.1	63	46.0		
receive	F	take	73	16.4	71	16.9	73	27.4	72	56.9	67	62.7		
receiver	6	one who receives	64	28.1	72	31.9	80	47.5	76	46.7	50	62.0		
receiver	6	part of the telephone	61	18.0	74	41.9	85	31.8	64	39.1	78	53.8		
recent	6	new	59	27.1	86	33.7	61	29.5	88	17.0	63	33.3		
recess	F	rest	69	26.1	93	36.7	70	60.0	80	62.5	70	70.0*		
recipe	6	directions	50	32.0	68	38.2	61	39.3	60	43.3	54	59.3		
recital	6	musical entertainment	67	22.4	70	28.6	73	47.9	72	48.6	73	47.9		
recitation	6	repeating of memorized material	77	35.1	94	46.8	62	53.2	77	50.6	68	55.9		
recite	6	repeat	49	36.7	69	36.2	65	33.8	79	39.2	49	40.8		
reckless	6	careless	78	25.6	79	27.8	69	21.7	66	36.4	68	44.1		
reckon	6	consider	59	18.6	70	20.0	76	32.9	64	32.8	56	44.6		
reclaim	6	bring back to good condition	64	23.4	72	31.9	80	37.5	76	52.6	50	56.0		
recognition	6	knowing again	69	29.0	76	38.2	64	40.6	77	46.1	52	80.8*		
recognize	6	know again	56	30.4	77	18.2	79	25.3	76	28.9	47	42.6		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
recollect	6	remember	65	36.9	77	36.4	76	28.9	75	36.0	68	35.3
recollection	6	memory	67	28.4	83	19.3	76	21.1	84	26.2	58	31.0
recommend	6	suggest	70	18.6	80	20.0	58	22.4	74	28.4	67	44.8
reconsider	6	think over	65	27.7	71	23.9	75	36.0	66	37.9	60	36.7
reconstruct	6	make over	58	20.7	66	20.9	76	19.7	78	39.7	58	50.0
record	F	set down in writing	68	16.2	74	23.0	76	36.8	70	51.4	69	58.0
recorder	6	a machine that records	68	29.4	71	38.0	74	40.5	67	50.7	63	47.6
recorder	4	clerk	67	23.9	70	18.6	73	24.7	72	31.9	73	37.0
recount	4	repeat	64	18.8	72	26.4	80	48.8	76	44.7	50	44.0
recover	6	get back	63	34.9	82	25.6	71	32.4	82	37.8	67	46.3
recovery	6	coming back to health	64	29.7	76	21.1	70	24.3	78	21.8	60	33.3
rectangular	6	oblong	75	12.0	64	11.9	87	19.5	69	20.3	76	32.9
red.	F	color	49	73.5*	69	71.0*	65	89.2*	79	96.2*	49	98.0*
red.	6	bluish	64	14.1	72	31.9	60	26.3	70	31.6	50	42.0
reddish	6	somewhat red	65	9.2	71	32.4	75	33.3	66	45.5	60	45.0
redskin	4	Indian	68	30.9	74	37.8	76	64.5	70	68.6*	69	76.8*
reduce	6	make less	65	15.4	61	21.3	90	18.9	67	38.8	73	54.8
redwood	4	tree	61	39.3	74	54.1	85	67.1*	64	73.4*	78	79.5*
reed	6	tall grass	61	26.2	74	24.3	85	27.1	64	32.8	78	37.2
reel	6	spool	68	27.9	80	20.0	69	30.4	70	30.0	59	27.1
reel	6	dance	70	27.1	95	26.3	72	33.3	77	23.4	61	16.4
referee	6	judge	51	17.6	63	27.0	66	33.3	53	43.4	53	56.6
reference	6	something used for information	58	31.0	70	35.7	58	32.8	57	35.1	56	60.7
refill	4	fill again	70	32.9	80	35.0	58	34.5	74	54.1	67	58.2
refine	6	make pure	67	28.4	83	25.3	76	23.7	64	27.4	58	36.2
refinery	6	factory	61	16.4	74	21.6	85	27.1	64	39.1	78	42.3
reflect	6	show an image of	77	20.8	94	28.7	62	19.4	77	32.5	68	30.9
reflection	6	image	78	6.4	73	11.0	81	25.9	81	25.9	71	39.4

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
reflector	4	mirror	57	28.1	64	26.6	63	33.3	76	39.5	53	56.6
reform	6	improve	78	23.1	79	15.2	69	31.9	66	31.8	66	52.9
reform	6	improvement	61	18.0	74	21.6	85	34.1	64	31.3	78	47.4
refresh	4	make fresh again	78	29.5	73	20.5	81	45.7	81	51.9	71	63.4
refreshments	4	food or drink	77	22.1	94	34.0	62	41.9	77	55.8	68	58.8
refrigerator	6	something that keeps things cool	77	55.6	94	48.9	62	54.8	77	71.4*	68	76.5*
refund	4	pay back	65	10.6	71	28.2	75	30.7	66	50.0	60	56.7
refugee	6	person who flees	69	33.3	93	22.6	70	34.3	80	33.8	70	31.4
refusal	6	unwillingness	77	24.7	94	34.0	62	38.7	77	32.0	68	52.9
refuse	F	say "no"	49	24.5	62	21.0	57	36.8	67	37.3	57	63.2
regain	6	get again	84	33.3	80	32.5	66	42.4	89	53.9	62	59.7
regard	6	good opinion	59	25.4	86	17.4	61	24.6	88	34.1	63	22.2
regardless	6	with no need	56	30.4	77	26.0	79	35.4	76	28.9	47	44.7
region	6	place	64	26.6	72	23.6	80	26.3	76	48.7	50	46.0
register	6	have one's name written in a list	44	29.5	76	38.2	88	25.0	59	39.0	55	38.2
register	6	record	66	33.3	73	17.8	66	21.2	86	32.6	71	36.0
register	6	thing that records	66	33.3	96	28.6	66	40.9	60	30.0	84	29.8
register	6	heat outlet	70	15.7	80	13.8	58	24.1	74	18.9	67	28.4
regret	6	feel sorry	76	35.5	91	27.5	75	42.7	85	48.2	57	63.2
regretful	6	sorry	77	41.6	94	35.1	62	43.5	77	36.4	68	41.2
regular	6	normal	74	23.0	79	36.7	77	46.8	80	63.8	57	77.2*
regulation	6	rule	77	16.9	94	16.1	62	17.7	77	32.5	68	23.5
rehearsal	6	practice	65	26.2	91	38.5	69	47.8	68	33.8	64	37.5
rehearse	6	practice	56	26.6	77	23.4	79	29.1	76	28.9	47	27.7
reheat	4	warm over	73	21.9	71	33.8	73	41.1	72	48.6	67	71.6*
reign	6	rule	61	34.4	81	40.7	77	37.7	61	31.1	70	35.7

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9	10 + 11	12 + 13	14 + 15	16 + 17					
			N	N	N	N	N	N	N	N	N	N
rein	6	strap	77	94	62	77	68	39.7				
reindeer	F	deer	78	82	82	85	61	70.5*				
rejoice	F	be glad	70	69	87	67	57	38.6				
rejoicing	6	happiness	79	75	76	83	53	49.1				
rejoin	5	unite again	61	81	77	61	70	67.1*				
relapse	6	fall back	58	86	76	78	58	36.2				
relate	6	connect	76	91	75	85	57	36.8				
relate	6	cell	69	76	64	77	52	26.9				
relation	4	person who belongs to the same family	76	87	73	78	63	47.6				
relationship	6	connection	66	98	66	60	84	71.4*				
relative	6	person who belongs to the same family	64	76	70	78	60	66.3*				
relax	6	loosen up	52	75	85	64	52	38.5				
relaxation	4	rest	73	71	73	72	67	53.7				
relay	6	carry	49	56	72	63	61	55.7				
release	6	let go	66	98	66	60	84	48.8				
reliable	6	worthy of trust	60	57	66	64	53	39.6				
relief	6	lessening of pain	70	95	72	77	61	41.0				
relieve	6	reduce pain	80	85	84	79	60	46.7				
relieve	6	free by taking his place	66	73	66	86	71	45.1				
religion	6	belief in God	68	80	69	70	59	54.2				
religious	6	fathful	41	57	70	71	51	56.9				
relish	6	spice	56	61	60	74	49	55.1				
reload	4	load again	70	95	72	77	61	54.1				
remain	F	stay	48	70	59	66	57	52.6				
remainder	6	part left over	49	69	65	79	49	53.1				
remark	6	say	67	70	73	72	73	35.6				
remarkable	6	unusual	51	63	66	53	53	56.6				

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
remedy	6	cure	48	29.2	70	25.7	59	16.9	66	42.4	57	45.6
remember	F	call back to mind	45	15.6	67	19.4	79	36.7	62	50.8	53	66.0
remembrance	6	souvenir	80	27.5	85	31.8	84	31.0	79	36.7	60	53.3
remind	F	cause to remember	75	24.0	84	32.1	87	51.7	69	59.4	76	63.2
reminder	6	something to help one remember	68	38.2	80	40.0	64	50.0	68	47.1	71	66.2
remodel	6	make over	58	25.9	70	18.6	58	29.3	57	31.6	56	48.2
removal	6	taking away	61	23.0	81	21.0	77	29.9	61	45.9	70	60.0
remove	F	take away	69	17.4	93	25.8	70	42.9	80	58.8	70	77.1*
renew	6	make over	66	28.8	73	21.9	66	24.2	86	39.5	71	60.6
renewal	6	making over	45	20.0	67	10.4	79	20.3	63	20.6	53	41.5
rent	F	payment	65	32.3	91	41.8	69	58.0	68	75.0*	64	84.4*
renter	6	tenant	68	25.0	74	35.1	76	39.5	70	44.3	69	39.1
reopen	6	begin again	65	23.1	61	16.4	90	24.4	67	34.3	73	39.7
reorganize	6	rearrange	68	50.0	71	46.5	74	50.0	67	35.8	63	46.0
repair	F	fix	69	34.8	93	33.3	70	31.4	80	50.0	70	70.0*
repay	F	give back	48	31.3	70	37.1	59	33.9	66	54.5	57	50.9
repeat	F	do again	45	26.7	68	19.1	79	25.3	57	61.4	51	68.6*
replace	4	put back	71	18.3	98	27.6	79	34.2	65	49.2	64	48.4
replacement	6	substitute	65	29.2	71	43.7	75	48.0	66	54.5	60	68.3*
reply	6	answer	66	13.6	98	18.4	66	30.3	60	31.7	84	57.1
report	F	an account	70	28.6	69	27.5	87	42.5	67	68.7*	57	64.9
reporter	4	person who gathers news	60	31.7	70	38.6	79	45.6	82	63.4	38	78.9*
represent	6	stand for	64	15.6	72	23.6	80	11.3	76	17.1	50	26.0
reprint	4	copy	70	27.1	69	30.4	87	40.2	67	50.7	57	66.7*
Republican	6	one of the political parties	48	35.4	70	37.1	59	35.6	66	59.1	57	64.9
repulsive	6	causing strong dislike	69	27.5	93	30.1	70	21.4	80	28.8	70	42.9

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
request	6	ask for	60	23.3	70	18.6	79	27.8	82	31.7	38	44.7
require	6	need	59	16.9	86	16.3	61	37.7	88	47.7	63	60.3
requirement	6	thing needed	45	13.3	67	26.9	79	30.4	63	52.4	53	52.8
rescue	6	save from danger	50	26.0	93	25.8	63	30.2	76	38.2	69	34.8
rescuer	6	aviour	67	22.4	70	21.4	73	20.5	72	41.7	73	41.1
research	6	hunting for facts	49	14.3	62	14.5	57	33.3	67	31.3	57	49.1
resemblance	6	similar appearance	61	24.6	81	24.7	77	26.6	61	21.3	70	38.6
resemble	6	be like	70	34.3	88	20.5	62	24.2	79	27.8	66	51.5
resent	6	feel angry	59	22.0	56	14.3	49	24.5	67	16.4	55	25.5
resentful	6	angry	65	21.5	61	24.6	90	13.3	67	26.4	73	32.9
resentment	6	anger	67	17.9	83	15.7	76	23.7	84	21.4	58	27.6
reservation	6	keeping back	41	26.8	57	15.8	70	8.6	71	16.9	51	23.5
reserve	6	save for later	50	24.0	68	25.0	61	37.7	60	36.7	54	46.3
reserve	6	savings	61	26.2	81	14.8	85	17.6	74	21.6	59	39.0
reservoir	6	place where water is stored	67	22.4	70	25.7	73	23.3	72	30.6	73	45.2
residence	6	house	70	24.3	88	19.3	62	12.9	79	26.6	66	24.2
resident	6	person living in a place	68	26.5	80	21.3	64	37.5	68	36.8	71	35.2
resign	6	give up	59	15.3	86	16.3	61	31.1	88	35.2	63	55.6
resort	6	vacation place	61	23.0	81	19.8	77	22.1	61	26.2	70	24.3
resound	6	echo	56	25.0	61	31.1	60	38.3	74	45.9	49	46.9
resources	6	wealth	54	18.5	86	20.9	73	15.1	77	23.4	63	31.7
respect	6	honor	68	22.1	74	28.4	76	31.6	70	45.7	69	47.8
respectable	6	decent	58	22.4	86	29.1	76	30.3	78	42.3	58	51.7
respectful	6	polite	54	27.8	86	24.4	73	35.6	77	39.0	63	61.9
respecting	6	concerning	84	29.8	80	25.0	66	43.9	89	40.4	62	64.5
respiration	6	breathing	60	41.7	79	45.6	82	37.8	66	43.9	72	50.0
respond	6	answer	60	25.0	57	31.6	66	30.3	64	28.1	53	41.5
response	6	answer	70	7.1	95	22.1	72	15.3	77	24.7	61	37.7

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
responsibility	6	duty	52	23.1	75	18.7	85	28.2	64	34.4	52	55.8
responsible	6	reliable	68	41.2	74	32.4	76	34.2	70	40.0	69	36.2
rest	F	sleep	63	39.7	80	43.8	65	69.2*	65	80.0*	71	87.3*
restaurant	6	place to eat	44	25.0	76	46.1	88	47.7	59	61.0	55	70.9*
restless	6	disturbed	45	26.7	66	48.5	79	50.6	57	56.1	51	70.6*
restlessness	6	nervousness	71	23.9	98	36.7	79	48.1	65	44.6	64	62.8*
result	6	that which happens	60	28.3	79	27.8	82	30.5	66	34.8	72	43.1
retail	6	sell	65	24.6	89	23.6	69	26.1	71	35.2	66	33.3
retake	6	recover	49	24.5	56	33.9	72	25.0	63	39.7	61	41.0
retire	6	go to bed	61	37.7	74	33.8	85	30.6	64	23.4	78	33.3
retire	4	give up one's business	58	20.7	86	27.9	76	31.6	78	46.2	58	69.0*
retrace	6	go back over	49	28.6	69	27.5	65	35.4	79	40.5	49	55.1
retreat	6	go back	65	29.2	89	28.1	69	42.0	71	60.6	66	47.0
return	F	come back	64	39.1	72	40.3	75	50.7	81	71.6*	65	81.5*
reunion	6	coming together again	67	20.9	83	27.7	76	26.3	84	40.5	58	39.7
reveal	6	make known	64	37.5	76	22.4	70	21.4	78	19.2	60	26.7
revenge	6	do harm in return	49	20.4	56	23.2	72	27.8	63	38.1	61	45.9
reversal	6	about-face	59	15.3	70	14.3	76	13.2	64	17.2	56	12.5
reverse	6	opposite	54	22.2	86	20.9	73	38.4	77	31.2	63	52.4
review	F	study again	59	23.7	86	33.7	61	52.5	88	70.5*	63	81.0*
revise	6	change	70	17.1	63	25.4	76	31.6	70	28.6	50	24.1
revisit	6	go back to	58	27.6	70	31.4	58	29.3	57	40.4	56	55.4
revolt	6	rise up against	45	26.9	68	36.6	79	22.8	57	42.1	51	41.2
revolution	6	turning round	75	21.3	88	17.0	77	29.9	74	24.3	72	45.8
revolve	6	move in a circle	57	29.8	64	29.7	63	33.3	76	40.8	53	43.4
revolver	6	a pistol	78	33.3	79	50.6	69	44.9	66	48.5	68	47.1
reward	F	money payment	52	17.3	75	21.3	85	37.6	64	39.1	52	61.5

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
rewrite	4	correct	80	31.3	85	24.7	84	21.4	79	36.7	60	31.7
rheumatism	6	disease	49	28.6	69	50.7	65	43.1	79	59.5	49	67.3*
rhinoceros	6	animal	77	20.8	94	41.5	62	45.2	77	53.2	68	57.4
rhubarb	6	plant	45	13.3	67	19.4	79	20.3	63	33.3	53	26.4
rhyme	6	sound alike	59	32.2	56	46.4	49	42.9	67	52.2	55	56.4
rhythm	6	regular movement	70	40.0	95	30.5	72	38.9	77	48.1	61	44.3
rib	F	bone	58	31.0	70	38.6	58	46.6	57	68.4*	56	78.6*
ribbon	F	band	80	27.5	85	32.9	84	35.7	79	48.1	60	61.7
rice	F	food	64	40.6	76	43.4	70	64.3	78	74.4*	60	85.0*
rich	F	having much money	77	29.9	94	52.1	62	66.1	77	75.3*	68	88.2*
riches	6	wealth	41	22.0	57	19.3	70	35.7	71	47.9	51	58.8
richness	6	plenty	44	20.5	76	19.7	88	31.6	59	33.9	55	52.7
rickety	6	shaky	44	20.5	76	23.7	66	30.7	59	42.4	55	49.1
rid	F	make free	68	16.2	80	30.0	64	25.0	68	32.4	71	33.8
riddance	6	clearing away	67	23.9	83	32.5	76	26.9	84	33.3	58	27.6
riddle	F	puzzle	49	28.6	69	27.5	65	32.3	79	48.1	49	61.2
ride	F	be carried along	77	40.3	94	47.9	62	51.6	77	67.5*	68	80.9*
rider	F	person who rides	69	26.1	76	35.5	64	43.8	77	64.9	52	76.9*
ridge	6	raised strip	68	26.5	80	30.0	65	29.2	65	30.8	71	28.2
riddulous	6	foolish	69	27.5	93	23.7	70	18.6	80	30.0	70	37.1
rifle	6	gun	57	35.1	64	21.9	63	36.5	75	53.9	53	56.6
rig	6	equip	68	27.9	80	18.8	65	24.6	65	40.0	71	36.6
rigging	6	equipment	52	13.5	75	21.3	85	36.5	64	35.9	52	28.8
right	F	true	66	30.3	98	31.6	66	56.1	60	70.0*	84	81.0*
rightful	6	proper	65	20.0	91	17.6	69	34.8	68	55.9	64	57.8
rigid	6	stiff	45	17.3	68	19.1	79	32.9	57	43.9	51	41.2
rim	F	edge	84	31.0	80	30.0	66	27.3	89	41.6	62	33.9

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
rind	6	covering	49	28.6	56	26.8	72	33.3	63	28.6	61	23.0
ring	F	circle	66	30.3	73	34.2	69	62.3	70	74.3*	66	84.8*
ringleader	6	director	70	24.3	95	21.1	72	19.4	77	40.3	61	47.5
ringlet	6	curl	60	31.7	79	29.1	82	37.8	66	39.4	72	44.4
rink	6	ice for skating	60	26.7	79	30.4	82	31.7	66	34.8	72	33.3
rinse	6	wash	66	25.3	98	26.5	66	36.4	60	38.3	84	51.2
riot	6	disorder	69	24.6	76	28.9	64	35.9	77	49.4	52	51.9
rip	F	tear	52	38.5	75	38.7	85	38.8	64	42.2	52	55.8
ripe	F	ready	80	30.0	75	26.7	76	25.0	66	21.2	62	37.1
ripen	6	develop	61	23.0	81	27.2	85	27.1	74	41.9	59	33.9
ripeness	6	full development	49	26.5	69	33.3	65	43.1	79	32.9	49	59.2
ripple	6	wave	48	22.9	70	21.4	59	20.3	66	22.7	57	17.5
rise	F	get up	63	20.6	82	29.3	71	45.1	82	53.7	67	67.2*
risk	4	chance of harm	49	20.4	69	23.2	65	27.7	79	44.3	49	67.3*
risky	4	dangerous	65	36.9	61	23.0	90	34.4	67	47.8	73	56.2
rival	6	opponent	44	25.0	76	15.8	80	29.5	59	23.7	55	34.5
rivalry	6	contest	65	13.5	91	20.9	69	20.3	68	22.1	64	18.8
river	F	stream	77	26.0		48.9	62	64.5	77	76.6*	68	91.2*
riverside	6	bank	56	21.4	61	34.4	60	23.3	74	47.3	49	61.2
river	6	metal bolt	65	21.5	91	27.5	69	26.1	68	45.6	64	37.5
rivet	6	fasten	60	26.7	79	16.5	82	26.8	66	31.8	72	19.4
roach	6	insect	61	9.8	74	23.0	85	29.4	64	31.3	78	35.9
road	F	street	65	40.0	91	53.8	69	68.1*	68	79.4*	64	89.1*
roadblock	4	fence	70	28.6	63	31.7	76	43.4	70	54.3	58	58.6
roadway	6	street	51	27.5	63	63.5	66	74.2*	53	81.1*	53	90.6*
roam	4	wander	59	25.4	70	21.4	76	28.9	64	32.8	56	42.9
roar	F	make a loud noise	75	18.7	84	34.5	87	44.8	69	65.2	76	64.5

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
roast	P	cook	49	36.7	69	31.9	65	46.2	79	59.5	49	59.2
rob	P	take away	75	28.0	84	31.0	87	33.3	69	43.5	76	55.3
robber	P	chief	44	27.3	76	23.7	88	52.3	59	49.2	55	61.8
robbery	4	stealing	70	24.3	95	41.1	72	38.9	77	59.7	61	63.9
role	P	dress	64	15.6	76	28.9	70	41.4	78	38.5	60	61.7
roblin	P	bird	51	43.1	63	74.6	66	90.9	53	90.6	53	89.7
robot	4	machine-made person	44	31.8	76	22.4	88	48.9	59	45.8	55	63.6
rocker	4	chair	65	33.8	77	23.4	76	36.8	75	42.7	68	42.6
rocky	P	rough	45	11.1	68	22.1	79	32.9	57	45.6	51	66.7
rod	6	a measure	66	18.2	73	21.9	69	29.0	70	40.0	66	53.0
rodeo	4	show	65	30.8	91	29.7	69	36.2	66	54.4	64	62.5
role	6	actor's part	79	26.6	75	21.3	76	31.5	83	28.9	53	28.3
roll	P	turn	70	38.6	80	46.3	58	32.8	74	52.7	67	59.7
romance	6	love story	63	30.2	82	25.8	71	35.2	82	41.5	67	65.7
romantic	6	lengthy	69	24.6	91	27.5	63	43.4	69	49.3	61	57.4
romp	6	play	73	24.7	71	28.2	73	19.2	72	18.1	67	31.3
romper	6	children's wear	54	31.5	86	31.4	73	30.1	77	40.3	63	33.3
roof	P	covering of a building	66	16.7	98	40.8	66	60.6	60	76.7	84	81.0
roofing	6	part of a house	74	39.2	79	41.8	77	61.0	80	73.8	57	70.9
roommate	6	person who shares a room	58	31.0	70	44.3	58	50.0	57	68.4	56	65.7
roomy	4	large	49	22.4	69	26.1	65	35.4	79	38.0	49	49.0
roost	6	bar on which birds rest	64	25.0	76	32.9	70	35.7	78	34.6	60	45.0
rooster	P	animal	52	26.9	75	56.0	85	65.9	64	82.8	52	98.1
roost	P	part of a plant	64	29.7	76	52.6	70	30.0	78	71.8	60	78.3
roost	6	cheer	68	26.5	74	32.4	76	25.0	70	15.7	69	11.6
rooster	6	admirer	74	18.9	79	39.2	77	40.3	80	43.8	57	42.1
rope	P	thick cord	61	29.5	81	32.1	85	42.4	74	59.5	59	67.8

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
rose	F	flower	66	47.0	98	49.0	66	77.3*	60	88.3*	84	89.3*
rot	F	spoil	66	28.8	98	17.3	66	31.8	60	40.0	84	52.4
rotate	6	turn in a circle	70	17.1	63	12.7	76	28.9	70	25.7	58	43.1
rotten	F	spoiled	59	22.0	86	20.9	61	45.9	88	55.7	63	54.0
rouge	6	powder for cheeks	76	30.3	67	25.3	73	39.7	78	44.9	63	28.6
rough	F	not smooth	66	21.2	73	26.0	69	44.9	70	64.3	66	77.3*
roughness	6	harshness	44	27.3	76	25.0	88	43.2	59	50.8	55	52.7
round	F	shaped like a ball	75	24.0	84	44.0	87	71.3*	69	75.4*	76	75.0*
round	6	song	67	26.9	83	22.9	76	13.2	84	20.2	58	6.9
roundup	4	bring together	68	17.6	74	20.3	76	25.0	70	18.6	69	18.8
rouse	6	wake up	68	26.5	80	23.8	69	30.4	70	20.0	59	23.7
route	F	way to go	56	28.6	61	47.5	60	48.3	74	78.4*	49	65.7*
routine	6	method of doing things	52	19.2	75	18.7	85	22.4	64	32.8	52	15.4
rove	6	wander	44	27.3	76	22.4	88	28.4	59	23.7	55	27.3
rover	6	wanderer	65	24.6	91	37.4	69	30.4	68	30.9	64	45.3
row	F	line of things	73	32.9	71	31.0	73	45.2	72	48.6	67	64.2
rowboat	F	boat	65	35.4	77	44.2	76	44.7	75	53.3	68	50.0
rowdy	6	disorderly person	68	19.1	80	15.0	69	24.6	70	21.4	59	33.9
rower	6	oarsman	70	21.4	95	21.1	72	41.7	77	39.0	61	49.2
royal	F	of kings and queens	74	32.4	79	27.8	77	31.2	80	47.5	57	64.9
royalty	6	nobility	65	32.3	77	37.7	76	43.4	75	61.3	68	48.5
rub	F	move one thing against another	73	28.8	71	31.0	73	39.7	72	62.5	67	40.3
rubbish	F	waste	64	20.3	72	22.2	75	16.0	81	43.2	65	35.4
ruby	4	stone	65	20.0	77	24.7	76	21.1	75	41.3	68	44.1
rudder	6	wood at rear of boat	73	28.8	71	22.5	73	31.5	72	23.6	67	37.3
ruffian	6	rough person	64	7.3	72	26.4	75	36.0	81	37.0	65	56.9
ruffle	6	crimming	65	26.2	91	46.2	69	46.4	68	48.5	64	42.2

-215-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
rug	F	floor covering	49	44.9	56	57.1	72	66.7*	63	76.2*	61	91.8*
rugged	4	rough	64	17.2	72	23.6	75	14.7	81	28.4	65	30.8
ruin	4	destroy	65	20.0	77	16.9	76	42.1	75	50.7	68	60.3
rule	F	direct	63	25.4	82	36.6	71	33.8	82	48.8	67	74.6*
ruler	F	king	73	28.8	71	16.9	73	17.8	72	38.9	67	46.3
ruler	6	straight strip of wood	68	23.5	71	26.8	74	29.7	67	29.9	63	31.7
rum	6	liquor	64	12.5	72	18.1	75	30.7	81	24.7	65	46.2
rumba	4	dance	65	26.2	77	29.9	76	32.9	75	29.3	68	27.9
rumble	F	make a deep sound	60	26.7	70	40.0	79	30.0	82	32.9	38	42.1
rummage	6	search	58	20.7	86	31.4	76	32.9	78	26.9	58	32.8
rumple	6	crush	64	15.6	72	26.4	75	14.7	81	30.9	65	40.0
rumpus	6	quarrel	64	31.3	72	16.7	75	22.7	81	38.3	65	41.5
run	6	slipped stitches	73	15.1	71	14.1	73	20.5	72	31.9	67	26.9
run	F	move quickly	73	32.9	71	33.8	73	46.6	72	50.0	67	62.7
runway	4	level land	73	13.7	71	21.1	73	34.2	72	31.9	67	29.9
rush	F	go with speed	73	16.4	71	35.2	73	41.1	72	62.5	67	67.2*
rustle	6	steal	56	25.0	61	31.1	60	31.7	74	27.0	49	18.4
rye	F	grain	73	25.6	71	33.8	73	53.4	72	58.3	67	71.6*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
sack	F	bag	56	41.1	77	48.1	79	50.6	76	52.6	47	66.0
sacred	6	holy	56	10.7	77	22.1	79	20.3	76	25.0	47	27.7
sacrifice	6	giving up	56	19.6	77	13.0	79	19.0	76	31.6	47	29.8
sad	F	not happy	45	64.4	67	70.1*	79	83.5*	63	90.5*	53	92.5*
sadden	6	make sad	50	26.0	68	22.1	61	49.2	60	56.7	54	74.1*
saddle	F	seat	59	20.3	70	41.4	76	47.4	64	62.5	56	62.5
sadness	F	sorrow	59	39.0	70	51.4	76	56.6	64	60.9	56	76.8*
safe	F	free from harm	44	20.5	76	28.9	88	45.5	59	50.8	55	61.8
safeguard	6	protect	63	19.0	82	18.3	71	25.4	82	39.0	67	65.7
safety	F	freedom from harm	80	23.8	85	27.1	84	45.2	79	54.4	60	73.3*
sag	6	hang down	60	38.3	57	31.6	66	31.8	64	28.1	53	34.0
sage	6	plant	67	46.3	70	37.1	73	26.0	72	29.2	73	21.9
sagebrush	6	plant	60	16.3	83	21.7	75	21.3	79	31.6	60	26.7
sail	F	cloth to make a ship move	50	34.0	68	44.1	61	60.7	60	56.7	54	74.1*
sailboat	F	ship	65	47.7	71	62.0	75	80.0*	66	89.4*	60	90.0*
sailor	F	person who works on a ship	76	44.7	91	51.6	75	68.0*	85	81.2*	57	86.0*
saint	F	holy person	65	24.6	91	33.0	69	40.6	68	57.4	64	71.9*
sainly	6	holy	56	21.4	77	31.2	79	40.5	76	40.8	47	38.3
sake	6	because of	68	13.2	80	17.5	65	26.2	65	32.3	71	39.4
salad	F	vegetables	59	37.3	56	62.5	49	61.2	67	73.1*	55	80.0*
salary	6	pay	65	21.5	77	27.3	76	23.7	75	33.3	68	32.4
sale	F	selling at lower prices	59	33.9	70	46.6	76	63.2	64	78.1*	56	80.4*
salesman	6	person whose work is selling	68	32.4	80	36.3	69	59.4	70	74.3*	59	79.7*
salesmanship	6	selling	66	27.3	98	29.6	66	59.1	60	58.3	84	77.4*
saleswoman	4	woman whose work is selling	69	39.1	76	57.9	64	50.0	77	79.2*	52	82.7*
saliva	6	liquid in the mouth	56	23.2	77	27.3	79	31.6	76	32.9	47	48.9
salmon	4	fish	56	28.6	77	27.3	79	45.6	76	55.3	47	74.5*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
saloon	4	place where drinks are sold	45	20.0	68	22.1	79	26.6	57	42.1	51	51.0
salt	F	seasoning	70	18.6	80	22.5	58	43.1	74	40.5	67	43.3
salty	6	containing salt	71	16.9	98	31.6	79	48.1	65	55.4	64	75.0*
salute	4	sign of welcome	65	15.4	71	25.4	75	28.0	66	34.8	60	45.0
salvation	6	saving	58	41.4	86	27.9	76	42.1	73	37.2	58	51.7
salve	6	ointment	60	30.0	83	24.1	75	40.0	79	38.0	60	21.7
same	F	like	56	30.4	77	41.6	79	45.6	76	51.3	47	76.6*
sample	6	model	48	33.3	70	37.1	59	30.5	66	31.8	57	36.8
sample	4	test	56	30.4	77	24.7	79	40.5	76	47.4	47	70.2*
sand	F	tiny grains	56	37.5	77	46.8	79	55.7	76	78.9*	47	85.1*
sandal	4	kind of shoe	68	32.4	80	41.3	64	34.4	68	54.4	71	52.1
sandwich	F	a food	69	36.2	93	55.9	70	72.9*	80	85.0*	70	92.9*
sanitarium	6	place for treatment	80	18.8	85	30.6	84	29.8	79	30.4	60	28.3
sanitary	6	free from dirt	70	25.7	88	17.0	62	30.6	79	24.1	66	33.3
sanitation	6	cleanliness	50	40.0	68	30.9	61	23.0	60	33.3	54	40.7
sanity	6	mental health	71	16.9	98	29.6	79	31.6	65	44.6	64	35.9
sap	F	juice	48	27.1	70	15.7	59	32.2	66	25.8	57	35.1
sapling	6	young tree	76	14.5	87	17.2	73	19.2	78	20.5	63	23.8
sapphire	6	stone	56	30.4	61	24.6	60	20.0	74	31.1	49	28.6
sardine	4	fish	70	40.0	69	39.1	87	21.8	67	31.3	57	31.6
sash	F	belt	49	22.4	56	17.9	72	20.8	63	28.6	61	29.5
sash	6	frame for a window	59	28.8	86	25.6	61	16.4	88	25.0	63	12.7
satchel	6	bag	60	33.3	83	18.1	75	20.0	79	24.1	60	21.7
satin	F	cloth	45	20.0	67	23.9	79	20.3	63	27.0	53	34.0
satisfaction	6	condition of being pleased	64	26.6	72	15.3	80	25.0	76	39.5	50	52.0
satisfactory	F	good enough	49	18.4	69	34.8	65	27.7	79	51.9	49	53.1
satisfy	4	please	60	25.0	70	38.6	79	34.2	82	32.9	38	39.5
-218-												

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
Saturday	F	day of the week	67	34.3	83	45.8	76	56.6	84	61.9	58	77.6*
sauekraut	6	cabbage	60	10.0	79	19.0	82	26.8	66	31.8	72	36.1
sauce	4	gravy	61	29.5	74	25.7	85	55.3	64	67.2*	78	60.3
saucepan	6	a cooking utensil	65	21.5	71	32.4	75	53.3	66	57.6	60	65.0
saucer	6	dish	68	30.9	80	33.8	65	44.6	65	49.2	71	53.5
sausage	E	meat	65	32.3	71	29.6	75	53.3	66	63.6	60	71.7*
savage	6	fierce	71	22.5	96	28.6	79	25.3	65	38.5	64	34.4
save	F	keep	71	40.8	98	55.1	79	53.2	65	66.2	64	92.2*
saver	6	preserver	45	26.7	68	33.8	79	39.2	57	68.4*	51	68.6*
savings	F	money laid away	64	29.7	72	43.1	80	58.8	76	60.5	50	78.0*
savior	6	rescuer	41	7.3	57	28.1	70	32.9	71	50.7	51	62.7
saw	F	tool for cutting	60	28.3	57	50.9	66	62.1	64	70.3*	53	81.1*
sawdust	6	particles of wood	80	18.8	85	25.9	84	50.0	79	55.7	60	70.0*
sawmill	4	building where machines saw timber	64	23.4	72	23.6	80	45.0	76	57.9	50	70.0*
saxophone	6	instrument	60	10.0	70	18.6	79	40.5	82	46.3	38	57.9
say	F	speak	64	21.9	72	31.9	80	51.3	76	67.1*	50	74.0*
scab	F	crust	67	19.4	70	37.1	73	47.9	72	56.9	73	54.8
scale	F	weighing machine	60	13.3	63	25.3	75	44.0	79	67.1*	60	51.7
scales	6	coverings	70	34.3	88	35.2	62	38.7	79	50.6	66	51.5
scallop	6	one of series of curves	65	18.5	71	31.0	75	22.7	66	22.7	60	20.0
scalp	6	top of the head	65	24.6	71	25.4	75	24.0	66	22.7	60	35.0
scaly	6	flaky	60	21.7	63	22.9	75	25.3	79	34.2	60	28.3
scamp	6	rascal	64	25.0	72	15.3	80	16.3	76	22.4	50	44.0
scamper	6	run	65	12.3	71	19.7	75	17.3	66	18.2	60	30.0
scan	6	look at closely	60	18.3	83	18.1	75	20.0	79	24.1	60	20.0
scandal	6	action that brings disgrace	76	25.0	91	28.6	75	26.7	85	32.9	57	38.6
scar	6	mark	76	44.7	91	27.5	75	30.7	85	45.9	57	45.6

WORD	DALE GRADE	DEFINITION
scarce	6	rare
scarcely	6	barely
scare	2	frighten
scarecrow	4	figure of a man
scarlet	6	red
scatter	4	sprinkle
scene	6	part of a play
scenery	4	view landscape
scent	6	smell
schedule	6	list
scheme	6	plan
scholar	6	learned person
schoolboy	F	pupil
schoolhouse	F	building
schoolmaster	F	man who teaches in a school
schoolroom	F	room in which pupils are taught
schoolteacher	6	instructor
schooler	6	ship
science	4	a subject
scientist	4	person trained in science
scissors	4	tool
scold	6	correct
scoop	6	tool
scoop	6	take up
scorch	F	burn
score	F	make a point

AGES

8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
N	%	N	%	N	%	N	%	N	%
59	20.3	86	23.3	61	29.5	88	42.0	63	34.9
60	18.3	83	25.3	75	40.0	79	58.2	60	48.3
78	23.1	73	28.8	81	51.9	81	58.0	71	76.1*
71	28.2	98	38.8	79	40.5	65	46.2	64	46.9
70	22.9	63	17.5	76	19.7	70	14.3	58	31.0
63	30.1	82	28.0	71	42.3	82	52.4	67	59.7
65	23.1	89	25.8	69	33.3	71	38.0	66	22.7
70	20.0	80	17.5	58	13.8	74	36.5	67	44.8
52	19.2	75	30.7	85	28.2	64	23.4	52	23.1
77	36.4	94	26.7	62	24.2	77	33.6	68	38.2
59	16.9	56	16.1	49	26.5	67	23.9	55	49.1
50	12.0	93	20.4	63	23.8	76	31.6	69	26.1
77	23.4	94	36.2	62	35.5	77	48.1	68	64.7
58	25.9	70	41.4	58	74.1*	57	77.2*	56	65.7*
49	32.7	62	56.5	57	66.4*	67	83.6*	57	84.2*
45	40.0	67	64.2	79	45.6	63	65.1	53	84.9*
64	23.4	72	30.6	75	54.7	81	72.8*	65	72.3*
68	23.5	80	15.0	65	35.4	65	55.4	71	62.0
77	28.6	94	17.0	62	25.8	77	19.5	68	27.9
77	26.0	94	33.0	62	32.3	77	40.3	68	66.2
45	31.1	66	35.3	79	58.2	57	75.4*	51	70.6*
77	22.1	94	38.3	62	48.4	77	64.9	68	76.5*
63	26.6	82	19.5	71	36.6	82	48.8	67	67.2*
63	27.0	82	42.7	71	28.2	82	30.5	67	34.3
63	17.5	82	17.1	71	22.5	82	25.6	67	50.7
74	26.4	79	29.1	77	22.1	80	36.3	57	29.8
45	22.2	68	29.4	79	44.3	57	77.2*	51	82.4*

WORD	GRADE	DEFINITION	TES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
scorn	6	look down upon	45	20.0	68	23.5	79	19.0	57	26.3	51	23.5
scour	6	move quickly over	60	16.7	83	16.9	75	26.7	79	45.6	60	23.3
soundrel	6	bad person	45	26.7	68	29.4	79	21.5	57	40.4	51	39.2
scoutmaster	6	man in charge of scouts	84	22.6	80	26.3	66	47.0	89	48.3	62	51.6
scowl	6	frown	45	28.2	67	23.5	72	35.4	57	56.1	51	41.2
scramble	4	rush to get	71	22.2	87	33.3	79	31.6	80	32.5	56	33.9
scramble	6	cook eggs	45	27.3	67	25.4	72	19.4	63	29.9	53	37.7
scramble	6	climb	77	35.7	94	47.4	62	51.4	77	64.1	61	42.6
scrapbook	4	album	70	19.7	73	37.0	72	22.7	77	32.8	71	32.4
scrape	F	rub	66	23.5	80	36.6	65	49.2	86	33.3	71	46.5
scraper	6	tool	63	30.2	82	32.0	71	50.0	82	47.6	67	67.2
scratch	F	cut with something sharp	66	21.2	73	37.0	66	27.3	86	29.8	71	55.8
scream	F	shout	66	34.8	73	29.8	66	29.0	86	46.0	71	55.8
screech	6	cry out	66	31.1	74	34.6	62	35.0	86	32.7	68	42.1
screen	F	cover	77	33.3	94	22.0	77	27.3	80	21.3	57	32.9
screen	6	select	74	24.7	79	34.2	71	33.9	77	21.3	67	32.7
screw	F	kind of nail	63	24.6	82	19.8	77	27.3	82	21.3	70	32.9
scribble	6	write carelessly	61	12.3	81	11.0	69	15.9	61	33.8	64	28.1
scribble	6	writer	65	21.2	91	24.7	66	34.3	86	27.9	71	31.0
scribe	4	writer	66	30.8	73	32.9	66	33.3	86	34.9	71	39.4
script	6	actor's part	66	28.8	73	49.3	66	43.8	86	52.3	71	60.6
scroll	6	roll of paper	66	47.0	73	16.4	66	21.1	86	19.8	71	52.1
scrub	F	rub	66	37.9	73	43.8	66	43.0	86	45.3	71	43.7
scuff	6	shuffle	66	25.8	73	26.0	66	21.1	86	37.2	71	25.4
scuffle	6	fight	66	16.7	73	16.4	66	21.1	86	35.1	71	43.7
sculptor	6	person who carves	66	21.4	73	21.1	66	30.6	86	35.1	71	50.8
sculpture	6	art of carving	70		95		72		77		61	

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
scum	6	thin layer	41	29.3	57	21.1	70	22.9	71	22.5	51	21.6
scurry	6	run	66	25.8	73	35.6	66	27.3	86	22.1	71	29.6
scythe	6	long blade	70	17.1	95	25.3	72	23.6	77	20.8	61	29.5
sea	F	ocean	44	47.7	76	68.4	88	76.1	59	91.5*	55	96.4*
seacoast	6	land along the sea	79	41.8	75	33.3	76	52.6	83	55.4	53	58.5
seafaring	6	ocean going	66	31.8	73	42.5	66	40.9	66	58.1	71	57.7
seal	F	animal	70	47.1	69	56.5	87	75.9*	67	83.6*	57	82.5*
seam	F	line where edges form	66	25.6	73	20.5	66	15.2	86	31.4	71	39.4
seaman	4	sailor	66	33.3	73	49.3	66	56.1	86	67.4*	71	73.2*
seaplane	6	airplane that can rise from water	67	41.8	83	42.2	76	57.9	84	67.9*	58	77.6*
seaport	4	harbor	69	30.4	91	26.4	83	37.3	69	55.1	61	60.7
search	F	look for	66	28.8	73	30.1	66	22.7	86	50.0	71	60.6
searchlight	6	powerful light	66	30.3	73	47.9	66	47.0	86	54.7	71	69.0*
seashore	4	beach	69	37.7	91	36.5	83	60.2	69	69.6*	61	78.7*
seasick	4	ill	59	11.9	56	19.6	49	42.9	67	50.7	55	74.5*
seaside	6	seashore	77	22.1	94	41.5	62	59.7	77	70.1*	68	75.0*
season	F	time	73	35.6	71	33.8	73	46.6	72	65.3	67	67.2*
season	6	improve the flavor of	80	27.5	75	26.7	76	34.2	66	37.9	62	45.2
seasoning	6	something that gives better flavor	69	24.6	91	38.5	83	45.8	69	47.8	61	41.0
seamstress	6	woman whose work is sewing	73	21.9	71	35.2	73	28.8	72	45.8	67	50.7
seat	F	chair	68	35.3	71	39.4	74	41.9	67	59.7	63	79.4*
seaweed	4	plant	66	12.1	73	27.4	66	42.4	86	54.7	71	71.8*
second	F	next after the first	50	30.0	68	57.4	61	70.5*	60	85.0*	54	85.2*
second	6	person who aids another	68	29.4	71	23.9	74	40.5	67	40.3	63	44.4
secrecy	6	being kept secret	61	26.2	74	25.7	85	36.5	64	59.4	78	64.1
secret	F	known only to a few	68	17.6	71	25.4	74	44.6	67	56.7	63	63.5
secretary	6	clerk	68	25.0	71	26.8	74	21.6	67	35.8	63	44.4

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
section	6	part	64	15.6	72	19.4	75	28.0	81	38.3	65	35.4		
secure	6	make firm	69	29.0	91	17.6	83	19.3	69	34.8	61	47.5		
secure	6	free from fear	64	23.4	72	30.6	75	24.0	81	28.4	65	41.5		
security	6	freedom from danger	65	21.5	61	34.4	90	32.2	67	23.9	73	26.0		
sedan	6	automobile	59	27.1	86	22.1	61	29.5	88	20.5	63	28.6		
sedative	6	drug	65	23.1	91	24.2	69	15.9	68	14.7	64	23.4		
see	F	look	65	63.1	91	83.5*	69	65.5*	68	95.6*	64	96.4*		
seed	F	thing from which a flower grows	73	39.7	71	47.9	73	67.1*	72	80.6*	67	68.1*		
seedling	6	young plant	69	29.0	91	50.5	83	61.4	69	68.1*	61	72.1*		
seek	F	search	73	27.4	71	29.6	73	37.0	72	52.8	67	65.7		
seem	F	appear	76	17.1	87	24.1	73	37.0	78	57.7	63	58.7		
seep	6	ooze	70	35.7	95	31.6	72	18.1	77	26.0	61	23.0		
seesaw	F	move up and down	61	52.5	81	48.1	77	50.4	61	67.2*	70	70.0*		
seize	6	take by force	76	21.1	87	29.9	73	27.4	76	32.1	63	44.4		
seldom	6	not often	70	25.7	63	15.9	76	35.5	70	25.7	58	39.7		
select	F	choose	73	17.8	71	18.3	73	17.8	72	33.3	67	44.8		
selection	6	choice	71	22.5	98	23.5	79	21.5	65	32.3	64	46.4		
selective	6	particular	75	21.3	88	27.3	77	24.7	74	33.8	72	52.8		
self	F	person	58	25.9	70	34.3	50	39.7	57	52.6	56	66.1		
selfish	F	caring too little for others	70	21.4	63	34.9	76	40.0	70	46.6	58	65.5		
sell	F	offer for sale	64	29.7	72	41.7	75	54.7	81	65.4	65	70.8*		
seller	6	trader	68	22.1	71	23.9	74	41.9	67	64.2	63	57.1		
semester	6	portion of time	78	14.1	82	28.0	82	29.3	85	49.4	61	30.8		
semicircle	6	half a circle	61	24.6	81	30.9	77	41.6	61	41.0	70	67.1*		
senate	6	assembly that makes laws	50	30.0	68	22.1	61	39.3	60	40.0	54	39.3		
senator	6	member of a senate	73	23.3	71	16.9	73	31.8	72	31.9	57	38.8		
send	F	cause to go	65	36.9	71	35.2	75	35.7	66	46.5	60	66.7*		

-223-

-223-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	Z	N	Z	N	Z	N	Z	N	Z		
senior	6	older	73	30.1	71	36.6	73	42.5	72	58.3	67	79.14		
sensation	6	feeling	64	29.7	72	26.4	80	15.0	76	34.2	50	46.0		
sensational	6	exciting	60	15.0	57	21.1	66	16.7	64	15.6	53	15.1		
sense	F	feeling	58	20.7	70	45.7	58	34.5	57	43.9	56	66.1		
senseless	6	foolish	73	27.4	71	36.6	73	23.3	72	38.9	67	46.3		
sensible	4	wise	68	13.2	80	18.8	65	29.2	65	36.9	71	40.8		
sensitive	6	easily hurt	64	29.7	72	18.1	80	31.3	76	28.9	50	36.0		
sentence	F	group of words	60	40.0	57	42.1	66	62.1	64	78.14	53	83.04		
separate	F	divide	73	19.2	71	16.9	73	27.4	72	44.4	67	62.7		
separation	6	taking apart	68	16.2	00	13.0	65	27.7	65	46.2	71	59.2		
September	F	month	60	55.0	70	61.4	79	87.34	82	91.34	36	97.44		
serenade	6	music	59	22.0	56	12.5	49	36.7	67	20.9	55	23.6		
sergeant	6	officer	59	37.3	56	46.4	49	61.2	67	52.2	55	50.9		
serial	6	story published one part at a time	84	17.9	80	20.0	66	22.7	89	23.6	62	25.8		
series	6	number of things in a row	58	29.3	86	16.3	76	30.3	70	29.5	58	46.6		
serious	4	not fooling	48	31.3	70	18.6	59	28.8	66	37.9	57	45.6		
seriousness	6	importance	78	24.4	82	31.7	82	43.9	85	63.5	61	62.3		
sermon	6	public talk	78	20.5	32	17.1	82	19.5	85	43.5	61	32.8		
serpent	6	snake	70	12.9	69	17.4	87	12.6	67	16.4	57	19.3		
serum	6	liquid	80	31.3	85	36.5	84	27.4	79	20.3	60	35.0		
servant	F	helper	66	16.7	73	37.0	66	42.4	86	52.3	71	62.0		
serve	F	work for	75	26.7	84	22.6	87	39.1	69	47.8	76	52.6		
serve	6	put into play	56	30.4	77	20.8	79	17.7	76	15.8	47	17.0		
server	6	person who serves	64	23.4	72	31.9	75	41.3	81	58.0	65	58.5		
service	F	helpful act	70	28.6	69	29.0	87	44.8	67	58.2	57	70.34		

-224-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
serviceable	6	useful	77	26.0	94	19.1	62	16.1	77	23.4	66	30.9
session	6	meeting	78	17.9	79	30.4	69	26.1	66	34.6	66	34.4
set	F	put	76	26.3	87	20.7	73	32.9	78	30.0	63	35.6
set	6	collection	49	16.3	62	45.2	57	42.1	67	38.2	57	43.2
setter	6	dog	68	20.6	80	18.8	65	21.5	65	16.9	71	15.5
setting	F	background	68	25.0	80	33.8	64	40.6	68	32.9	71	30.7
settlement	F	small village	49	38.8	69	27.5	65	32.3	79	46.6	49	41.2
settler	6	colonist	70	21.4	69	24.6	87	44.8	67	62.7	57	64.9
seven	F	one more than six	68	36.2	80	50.0	65	06.24	65	04.60	71	05.90
seventh	F	next after the sixth	76	43.4	87	65.5	73	74.04	78	79.30	63	87.30
seventy	F	seven times ten	60	23.3	83	39.8	75	54.7	79	82.30	60	75.00
several	F	some	76	28.9	87	29.9	73	39.7	78	56.4	63	57.1
severe	6	harsh	76	17.1	87	35.6	73	34.2	78	53.8	63	58.7
sew	F	join by a thread	76	30.3	87	40.2	73	54.8	78	74.40	63	82.50
sewage	6	waste	76	13.2	87	26.7	73	43.0	78	37.2	63	60.3
sewer	6	underground drain	64	18.8	72	19.4	80	22.5	76	32.9	50	46.0
sewing	4	work done with a needle and thread	76	23.7	87	49.4	73	68.54	78	78.20	63	93.70
sex	4	being male or female	60	21.7	83	26.5	75	29.3	79	70.90	60	75.00
shabby	6	worn	76	38.2	91	25.3	75	24.0	85	30.6	57	22.8
shack	6	hut	66	18.2	73	26.0	69	20.3	70	32.9	66	28.8
shade	F	partly dark place	73	27.4	71	32.4	73	37.0	72	51.4	67	67.20
shady	F	dim	78	16.7	73	23.3	81	34.6	81	32.1	71	50.7
shadow	F	dark figure	70	25.7	88	39.8	62	66.1	79	70.90	66	78.80
shaft	6	passage	68	26.5	80	12.5	64	23.4	68	23.5	71	23.4
shaft	6	stem	76	19.7	91	26.4	75	25.3	85	20.0	57	24.6
shaggy	6	covered with hair	65	23.1	77	27.3	76	35.5	75	49.3	68	41.2

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
shake	F	move from side to side	68	27.9	80	31.3	65	50.8	65	63.1	71	63.4		
shaken	6	upset	60	18.3	63	18.1	75	30.7	79	50.6	60	30.0		
shaky	6	weak	67	31.3	70	32.9	73	34.2	72	44.4	73	39.7		
shallow	6	not deep	69	23.2	93	28.0	70	37.1	80	53.8	70	52.9		
shameful	6	bringing disgrace	65	29.2	61	23.0	90	43.3	67	47.8	73	64.4		
shameless	6	not modest	60	23.3	57	22.8	66	37.9	64	35.9	53	47.2		
shampoo	4	wash the hair	71	35.2	96	41.8	79	64.6	65	70.8*	64	90.6*		
shanty	6	hut	65	26.2	61	23.0	90	14.4	67	17.9	73	28.8		
shape	F	form	49	20.4	69	29.0	65	30.8	79	43.0	49	59.2		
shapeless	4	formless	78	16.7	82	25.6	82	35.4	85	55.3	61	55.7		
share	F	part	74	29.7	79	34.2	77	29.9	80	40.0	57	49.1		
shark	4	fish	49	24.5	69	36.2	65	33.0	79	60.8	49	77.6*		
sharp	F	pointed	66	21.2	73	31.5	69	30.4	70	62.9	66	66.2*		
sharpen	4	put an edge on	78	25.6	82	29.3	82	26.8	85	41.2	61	39.3		
sharpness	6	quickness	65	33.8	61	32.8	90	33.3	67	38.8	73	46.6		
sharpshooter	6	marksman	63	25.4	62	35.4	71	42.3	82	43.9	67	52.2		
shave	F	cut hair	64	31.3	76	36.8	70	51.4	78	59.0	60	60.0*		
shawl	4	cloth worn about the shoulders	68	30.9	80	25.0	65	40.0	65	36.9	71	38.0		
she	F	the girl	80	67.5*	85	75.3*	84	82.1*	79	93.7*	60	96.7*		
shear	F	cut	77	22.1	94	21.3	62	21.0	77	27.3	68	39.7		
sheath	6	case	58	22.4	70	15.7	58	17.2	57	19.3	56	25.0		
shed	F	hut	84	21.4	80	27.5	66	37.9	69	47.2	62	53.2		
shed	6	let fall	78	25.6	82	18.3	82	30.5	85	21.2	61	32.8		
sheen	6	brightness	61	18.0	81	27.2	77	20.8	61	26.2	70	32.9		
sheep	F	animal	49	44.9	69	58.0	65	83.1*	79	66.1*	49	67.0*		
sheepish	6	bashful	66	30.3	98	27.6	66	47.0	60	38.3	84	54.8		

-226-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
sheet	F	covering	66	27.3	96	33.7	66	43.9	60	63.0	64	63.1
shell	F	covering	65	35.4	91	31.9	69	49.3	68	61.8	64	59.4
shellac	6	varnish	49	20.4	69	36.2	65	49.2	79	58.2	49	63.3
shellfish	4	animal	50	38.0	68	44.1	61	60.7	60	70.0	54	77.8
shelter	4	something that protects	50	28.0	93	37.6	63	50.8	76	52.6	69	50.7
shepherd	F	man who takes care of sheep	80	40.8	85	51.8	84	60.7	79	63.3	60	60.3
shepherd	6	desert	67	19.4	70	24.3	73	35.6	72	44.4	73	37.8
sheriff	4	officer	65	32.3	61	39.3	90	50.0	67	62.7	73	73.3
sherry	6	wine	63	19.1	74	23.0	76	30.2	70	45.7	69	49.3
shield	4	protect	74	24.3	79	20.3	77	31.2	80	28.8	57	42.1
shield	6	armor	58	19.0	70	18.6	58	27.6	57	31.6	56	44.4
shift	6	change	49	26.5	56	17.9	72	31.9	63	33.3	61	36.1
shimmer	6	gleam	84	25.0	80	27.5	66	28.8	89	46.1	62	54.8
shin	4	part of the leg	50	28.0	93	22.6	63	42.9	76	56.6	69	43.3
shine	F	be bright	51	31.4	63	50.8	66	74.2	53	83.0	53	88.7
shingle	6	piece of wood	56	26.8	77	22.1	79	25.3	76	31.6	47	27.7
shining	F	gloving	60	33.3	83	38.6	75	45.3	79	51.9	60	63.8
shiny	F	bright	64	29.7	72	45.8	80	60.0	76	75.0	50	78.0
ship	F	boat	67	46.3	70	55.7	73	78.1	72	90.3	73	91.0
shipment	4	goods	59	28.8	86	24.4	61	37.7	88	40.9	63	49.2
shipper	4	person who ships goods	66	22.7	73	45.2	66	42.4	86	58.1	71	53.3
shipshape	4	neat	67	32.8	70	24.3	73	16.4	72	26.4	73	28.8
shipwreck	4	loss of a ship	65	9.2	61	29.5	50	30.0	67	37.3	73	47.9
shipyard	6	place where ships are built	66	13.6	73	30.1	69	43.5	70	62.9	66	62.1
shiver	4	shake	74	40.5	79	40.5	77	45.5	80	55.0	57	64.9
shock	F	upset	64	17.2	72	27.8	75	29.3	81	36.3	63	53.8
shoe	F	covering for a foot	68	51.5	80	72.5	65	81.5	65	90.8	71	96.8

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			M	T	M	T	M	T	M	T	M	T
shoemaker	F	person who mends shoes	45	31.1	68	45.6	79	57.0	57	86.0 ^a	51	86.3 ^a
shoot	F	hit with a bullet	84	28.6	80	38.8	66	57.6	89	60.7	62	71.0 ^a
shop	F	store	71	42.3	87	51.7	72	59.7	80	81.7 ^a	56	83.1 ^a
shopkeeper	6	person in a store	50	30.0	66	47.1	61	57.4	60	63.3	56	81.3 ^a
shopper	6	buyer	78	17.9	82	32.9	82	48.8	85	67.1 ^a	61	67.2 ^a
shopping	F	buying	78	29.5	82	40.2	82	61.0	85	69.4 ^a	61	73.8 ^a
shore	F	land	45	26.7	67	31.3	79	46.8	63	57.1	53	58.3
shoreline	6	seacoast	61	19.7	81	22.8	77	33.8	61	44.3	70	72.9 ^a
shoreward	6	coastal	61	13.1	81	22.2	85	38.8	74	47.3	59	53.9
short	F	not long	70	45.7	88	50.0	62	71.0 ^a	79	83.3 ^a	66	78.8 ^a
shortage	4	too small an amount	56	25.0	77	33.8	79	44.3	76	53.3	67	61.7
shorten	4	cut off	65	23.1	61	27.9	90	42.2	67	44.8	73	50.7
shortland	6	method of writing	65	26.2	61	26.2	90	37.8	67	58.7	73	60.3
shortness	6	briefness	68	17.6	80	18.8	65	30.8	65	40.3	71	54.9
shortstop	6	baseball player	77	28.6	94	31.9	62	45.2	77	61.6	68	58.2
shoulder	F	part of the body	64	31.3	76	36.8	70	41.4	76	59.0	60	76.7 ^a
shout	F	call	66	21.2	73	45.2	66	56.1	86	66.3	71	67.8 ^a
shove	4	push	65	27.7	61	23.0	90	31.1	67	35.8	73	44.6
shovel	F	tool	65	26.2	61	39.3	90	56.7	67	60.6 ^a	73	57.1 ^a
show	F	let be seen	65	16.9	61	36.1	90	51.1	67	68.7 ^a	73	78.1 ^a
showboat	6	cheater	65	27.7	61	37.7	90	41.1	67	58.2	73	58.9
shower	F	rain	58	36.2	70	51.4	56	56.6	57	71.9 ^a	56	73.2 ^a
shower	6	party	65	33.8	61	23.0	90	38.9	67	35.8	73	50.7
shower	4	bathe	51	41.2	63	54.0	66	65.2	53	73.6 ^a	53	81.1 ^a
showman	6	director	70	24.3	69	40.6	87	51.7	67	47.8	57	68.4 ^a
shriek	6	yell	65	21.5	61	16.4	90	20.0	67	28.4	73	24.7
shrill	6	having a high pitch	60	13.3	79	29.1	82	24.4	66	34.8	72	20.8

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
shrimp	6	shellfish	58	32.8	70	45.7	58	39.7	57	68.4*	56	75.0*
shrink	6	draw back	48	37.5	70	22.9	59	27.1	66	30.3	57	29.8
shrink	4	become smaller	50	14.0	93	23.7	63	34.9	76	30.3	69	23.2
shrinkage	4	loss	51	27.5	63	23.8	66	13.6	53	24.5	53	26.4
shriveled	6	dry up	48	25.0	70	24.3	59	16.9	66	16.7	57	17.5
shrub	6	plant	67	22.4	70	25.7	73	20.5	72	41.7	73	35.6
shrubbery	6	brush	48	25.0	70	21.4	59	27.1	66	34.8	57	35.1
shrug	6	raise the shoulders	77	24.7	94	22.3	62	27.4	77	22.1	66	23.5
shrunk	4	grown smaller	74	25.7	79	22.8	77	33.8	80	37.5	57	43.9
shuck	6	husk	60	31.7	79	27.8	82	34.1	66	40.9	72	48.6
shudder	6	tremble	48	22.9	70	25.7	59	35.6	66	42.4	57	49.1
shuffle	6	drag the feet	78	25.6	82	29.3	82	23.2	85	43.5	61	37.7
shuffle	6	mix	74	21.6	79	26.6	77	23.4	80	33.6	57	33.3
shut	F	close	48	29.2	70	41.4	59	52.5	66	74.2*	57	77.2*
shutter	6	cover for a window	60	18.3	57	29.8	66	37.9	64	42.2	53	49.1
shyness	6	bashfulness	70	18.6	88	29.5	62	40.3	79	45.6	66	63.6
sick	F	in poor health	79	22.8	76	38.2	91	61.5	64	79.7*	69	81.2*
sicken	6	fall ill	59	32.2	70	41.4	76	44.7	64	68.8*	56	78.6*
sickle	6	tool	41	17.1	57	22.8	70	17.1	71	14.1	51	9.8
sickly	6	not healthy	49	20.4	69	34.8	65	41.5	79	60.8	49	81.6*
sickness	F	illness	74	32.4	79	24.1	77	51.9	80	63.8	57	73.7*
side	F	surface	66	13.6	98	23.5	66	40.9	60	60.0	84	66.7*
sidelong	6	to one side	45	33.3	67	43.3	79	46.8	63	60.3	53	62.3
sidewalk	F	pavement	68	26.5	80	26.3	64	43.8	68	55.9	71	57.7
sideways	F	to one side	84	22.6	80	36.3	66	47.0	89	56.2	62	61.3
sidewise	6	sideways	60	35.0	70	47.1	79	49.4	82	45.1	38	47.4
siding	6	track	48	29.2	70	18.6	59	18.6	66	33.3	57	19.3

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
siege	6	attack	70	8.6	69	23.2	87	23.0	67	28.4	57	36.8
sieve	6	strainer	48	16.7	70	25.7	59	16.9	66	25.8	57	40.4
sift	6	fall through	48	10.4	70	28.6	59	28.8	66	34.8	57	40.4
sigh	F	breathe loudly	48	25.0	70	24.3	59	33.9	66	25.8	57	36.8
sight	F	view	65	24.6	77	31.2	76	32.9	75	40.0	68	47.1
sightless	6	blind	75	29.3	88	25.0	77	36.4	74	48.6	72	56.9
signal	6	sign	75	38.7	84	35.7	87	43.7	69	69.6	76	67.1
signature	4	person's name written by himself	69	29.0	76	36.8	64	46.9	77	61.0	52	78.8
signboard	6	poster	66	22.7	98	17.3	66	33.3	60	36.7	84	56.0
silence	F	stillness	68	25.0	80	43.8	69	49.3	70	54.3	59	64.4
silent	F	quiet	50	38.0	93	30.1	63	50.8	76	56.6	69	59.4
silhouette	6	outline	68	25.0	74	29.7	76	26.3	70	37.1	69	21.7
silk	F	cloth	66	27.3	98	34.7	66	43.9	60	65.0	84	77.4
silken	6	smooth	56	14.3	61	24.6	60	35.0	74	41.9	49	57.1
silkworm	6	caterpillar	48	29.2	70	41.4	59	61.0	66	71.2	57	71.9
sill	F	wood across the bottom of a window	52	36.5	75	34.7	85	32.9	64	34.4	52	30.8
silly	F	foolish	60	30.0	57	52.6	66	65.2	64	71.9	53	83.0
silver	F	metal	61	11.5	74	33.8	85	47.1	64	71.9	78	70.3
silverware	4	knives, forks and spoons	52	21.2	75	37.3	85	54.1	64	65.6	52	90.4
silvery	4	bright	66	22.7	73	41.1	69	26.1	70	55.7	66	72.3
similar	6	much the same	57	35.1	64	23.4	63	20.6	76	36.8	53	43.4
similarity	6	likeness	58	32.8	70	35.7	58	34.5	57	38.6	56	57.1
slimmer	6	boil	63	36.5	82	25.6	71	21.1	82	17.1	67	39.9
simple	F	easy	65	12.3	71	38.0	75	32.0	66	48.5	60	61.7
simplify	6	make easier	74	20.3	79	20.3	77	24.7	80	30.0	57	42.1
simply	4	easily	67	31.3	83	34.9	76	40.8	84	54.8	58	65.5
sin	F	evil deed	49	38.8	62	38.7	57	52.6	67	68.3	57	73.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
since	F	from then till now	80	27.5	75	29.3	76	31.6	66	47.0	62	64.3
sincere	6	honest	41	17.1	57	12.3	70	37.1	71	53.5	51	52.9
sincerely	6	frankly	66	24.2	98	17.3	66	16.7	60	28.3	64	34.3
sinful	6	wicked	70	30.0	88	22.7	62	38.7	79	32.9	66	43.9
sing	F	make music with the voice	75	37.3	88	52.3	77	66.2	74	79.7 ^a	72	80.6 ^a
singe	6	burn	67	13.4	70	14.3	73	9.6	72	16.7	73	11.0
singer	F	person who sings	48	27.1	70	40.0	59	49.2	66	56.1	57	71.9 ^a
single	F	one	70	21.4	80	16.3	58	19.0	74	43.2	67	53.7
singular	6	one	70	21.4	88	19.3	62	17.7	79	43.0	66	56.1
sink	F	tub	74	43.2	79	45.6	77	50.6	80	66.3	57	71.9 ^a
sinless	6	pure	69	29.0	91	22.0	83	31.3	69	33.3	61	52.5
sinner	4	person who does wrong	76	28.9	87	23.0	73	32.9	78	42.3	63	57.1
sip	F	drink	50	28.0	68	30.9	61	19.7	60	28.3	54	35.2
sir	F	title	66	24.2	73	27.4	69	33.3	70	34.3	64	43.9
siren	6	whistle	64	23.4	76	28.9	70	32.9	78	33.3	60	35.0
strolch	6	cut of meat	49	20.4	62	19.4	57	21.1	67	14.9	57	29.8
sister	F	daughter of the same parents	56	41.1	61	55.7	60	70.0 ^a	74	79.7 ^a	49	91.0 ^a
sisterhood	6	club	69	31.9	91	23.1	83	25.3	69	40.6	61	44.3
sit	F	rest on the lower part of the body	69	21.7	93	33.3	70	50.0	80	68.8 ^a	70	78.6 ^a
site	6	place	57	36.8	64	17.2	63	27.0	76	36.8	53	45.3
situated	6	placed	48	20.8	70	28.6	59	16.9	66	22.7	57	29.8
situation	6	condition	51	35.3	63	17.5	66	15.2	53	22.6	53	24.5
six	F	one more than five	64	42.2	72	62.5	80	82.5 ^a	76	85.3 ^a	50	90.0 ^a
sixpence	6	British coin	70	27.1	88	22.7	62	48.4	79	64.6	66	78.0 ^a
sixteen	F	six more than ten	61	39.3	81	39.5	85	56.5	74	64.9	59	79.7 ^a
sixth	F	next after the fifth	61	41.0	74	70.3 ^a	85	72.9 ^a	64	89.3 ^a	78	93.6 ^a

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
sixty	F	six times ten	64	28.1	76	43.4	70	45.7	78	60.3	60	80.0*		
size	F	space a thing takes up	57	24.6	64	35.9	63	54.0	76	52.6	53	66.0		
skate	F	glide	70	14.3	88	39.8	62	62.9	79	55.7	66	68.2*		
skeleton	4	bones	56	37.5	77	31.2	79	54.4	76	61.8	47	90.9*		
sketch	6	drawing	67	28.4	70	31.4	73	20.5	72	38.9	73	26.0		
ski	F	glide over snow	64	37.5	72	48.6	80	67.5*	76	67.1*	50	86.0*		
skid	6	slip	60	21.7	70	50.0	79	36.7	82	43.9	38	36.8		
skiff	6	boat	76	26.3	91	19.8	75	20.0	85	15.3	57	15.8		
skill	4	ability	61	21.3	81	21.0	77	27.3	61	29.5	70	57.1		
skilled	4	trained	50	24.0	93	23.7	63	28.6	76	59.2	69	47.8		
skillet	6	pan	75	13.3	88	12.5	77	11.7	74	9.5	72	19.4		
skillful	4	trained	67	25.4	83	21.7	76	30.3	84	46.8	58	65.5		
skin	F	covering of the body	78	26.9	73	34.2	81	59.3	81	66.7*	71	87.3*		
skinny	6	thin	78	21.8	82	23.2	82	35.4	85	63.5	61	63.9		
skip	F	jump	67	46.3	83	59.0	76	61.8	84	73.8*	58	70.7*		
skipper	6	captain	52	26.9	75	22.7	85	23.5	64	21.9	52	21.2		
skirt	F	part of a dress	41	58.5	57	71.9*	70	77.1*	71	91.5*	51	88.2*		
skull	4	top of the head	61	24.6	74	28.4	85	34.1	64	48.4	78	61.5		
skunk	4	animal	68	36.8	80	61.3	65	75.4*	65	87.7*	71	88.7*		
sky	F	the heavens	44	27.3	76	50.0	88	71.6*	59	71.2*	55	78.2*		
skylark	6	bird	60	41.7	57	31.6	66	34.8	64	32.8	53	45.3		
skyscraper	4	tall building	49	36.7	69	50.7	65	32.3	79	53.2	49	75.5*		
slab	6	flat stone	41	26.8	57	31.6	70	31.4	71	38.0	51	39.2		
slack	6	loose	69	37.7	93	29.0	70	25.7	80	26.3	70	32.9		
slacken	6	make slower	59	32.2	56	35.7	49	34.7	67	37.3	55	52.7		
slacks	6	trousers	65	21.5	91	19.8	69	34.8	68	44.1	64	67.2*		
slam	F	shut	75	29.3	88	34.1	77	37.7	74	48.6	72	54.2		

-232-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
slang	6	special vocabulary	66	25.8	73	37.0	66	30.3	86	29.1	71	33.8		
slant	6	slope	49	22.4	56	30.4	72	27.8	63	39.7	61	34.4		
slap	F	hit	60	25.0	70	38.6	79	43.0	82	50.0	38	76.3 ⁴		
slash	6	cut	52	21.2	75	14.7	85	15.3	64	17.2	52	23.1		
slate	F	rock	49	20.4	69	14.5	65	10.8	79	17.7	49	38.8		
slaughter	6	kill	59	47.5	70	34.3	76	48.7	64	31.3	56	48.2		
slave	F	worker	57	26.3	64	26.6	63	34.9	76	56.6	53	64.2		
slay	6	kill	65	26.2	89	25.8	69	30.4	71	45.1	66	28.8		
slayer	6	killer	49	22.4	56	32.1	72	41.7	63	39.7	61	54.1		
sled	F	sleigh	56	25.0	77	35.1	79	49.4	76	61.8	47	59.6		
sleek	6	smooth	58	20.7	70	24.3	58	17.2	57	26.3	56	32.1		
sleep	F	rest	71	43.7	98	44.9	79	57.0	65	69.2 ⁴	64	85.9 ⁴		
sleep	6	one that sleeps	71	35.2	98	37.8	79	57.0	65	50.5	64	67.2 ⁴		
sleepless	6	wakeful	49	32.7	62	35.5	57	49.1	67	67.2 ⁴	57	80.7 ⁴		
sleepwalker	4	night walker	59	27.1	70	41.4	76	61.8	64	65.6	56	80.4 ⁴		
sleepy	F	tired	49	30.6	62	64.5	57	68.4 ⁴	67	76.1 ⁴	57	87.7 ⁴		
sleet	4	snow mixed with rain	65	24.6	91	46.2	69	29.0	68	52.9	64	57.8		
sleeveless	4	without sleeves	49	26.5	62	22.6	57	36.8	67	40.3	57	66.7 ⁴		
sleigh	F	sled	60	36.7	79	30.4	82	59.8	66	68.2 ⁴	72	65.3		
slender	4	long and thin	52	30.8	75	28.0	85	23.5	64	26.6	52	46.2		
slice	F	cut	57	21.1	64	32.8	63	33.3	76	44.7	53	47.2		
slick	6	smooth	56	23.2	61	39.3	60	31.7	74	41.9	49	53.1		
slide	F	move smoothly	52	25.0	75	34.7	85	42.4	64	45.3	52	50.0		
slight	6	small	44	34.1	76	22.4	88	11.4	59	16.9	55	29.1		
slim	4	thin	66	27.3	98	21.4	66	39.4	60	38.3	64	57.1		
slime	6	mud	69	20.3	76	22.4	64	29.7	77	18.2	52	21.2		

-233-

-233-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	Z	N	Z	N	Z	N	Z	N	Z		
slimy	6	filthy	77	24.7	94	27.7	62	27.4	77	32.5	60	47.1		
sling	6	cloth to support a hurt arm	44	22.7	76	13.2	88	28.4	59	16.9	55	29.1		
sling	F	throw	78	21.8	79	21.5	69	26.1	66	22.7	68	33.8		
slink	6	sneak	56	25.0	77	27.3	79	21.5	76	47.4	47	53.2		
slip	F	slide	50	24.0	68	35.3	61	54.1	60	63.3	54	66.7*		
slipper	F	shoe	76	47.4	91	49.5	75	50.7	85	65.9	57	66.7*		
slippery	F	smooth	60	26.7	67	29.9	79	39.2	81	39.5	62	59.7		
slit	F	cut	78	30.8	79	30.4	69	26.1	66	31.8	68	41.2		
silver	6	piece that has been broken off	68	23.5	80	13.8	65	26.2	65	35.4	71	22.5		
slop	6	spill	80	36.3	75	46.7	76	40.8	66	63.6	62	62.9		
slope	4	hill	49	28.6	62	24.2	57	24.6	67	28.4	57	61.4		
sloppy	6	careless	74	24.3	79	31.6	77	39.0	80	40.0	57	63.2		
slot	4	crack	45	33.3	68	29.4	79	35.4	57	42.1	51	54.9		
slouch	6	droop	57	14.0	64	29.7	63	28.6	76	28.9	53	34.0		
slow	F	not fast	45	57.8	68	66.2	79	78.5*	57	91.2*	51	92.2*		
slug	6	hit	80	20.0	75	20.0	76	17.1	66	30.3	62	30.6		
slugs	6	bullets	63	25.4	82	25.6	71	32.4	82	25.6	67	47.8		
slumber	6	sleep	63	38.1	82	31.7	71	29.6	82	24.4	67	23.9		
slump	6	fall	45	31.1	67	11.9	79	24.1	63	33.3	53	50.9		
slums	6	part of a city	51	19.6	63	15.9	66	9.1	53	35.8	53	45.3		
slush	6	melted snow	63	25.4	82	29.3	71	29.6	82	40.2	67	49.3		
smack	F	slap	52	21.2	75	28.0	85	28.2	64	37.5	52	53.8		
small	F	not large	52	36.5	75	57.3	85	76.5*	64	79.7*	52	94.2*		
smallpox	6	a disease	52	7.7	75	29.3	85	34.1	64	37.5	52	73.1*		
smart	F	clever	52	26.9	75	29.3	85	42.4	64	57.8	52	78.8*		
smash	6	break	65	29.2	89	28.1	69	40.6	71	54.9	66	50.0		
smear	4	rub with grease	67	14.9	83	27.7	76	30.3	84	36.9	58	36.2		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
smell	F	breathe	75	18.7	88	22.7	77	51.9	74	52.7	72	68.1*
smelt	6	melt ore	68	33.8	74	24.3	76	38.2	70	45.7	69	60.9*
smile	6	look pleased	67	28.4	83	36.1	76	53.9	84	65.5	58	67.2*
smith	F	man who makes things out of metal	61	31.1	74	33.8	85	44.7	64	54.7	78	61.5*
smithy	6	workshop	59	33.9	70	55.7	76	59.2	64	59.4	56	60.7*
smock	6	loose garment	56	21.4	77	20.8	79	19.0	76	26.3	47	23.4
smog	4	smoke and fog	49	24.5	69	47.8	65	53.8	79	59.5*	49	81.6*
smoke	4	give off steam	78	28.2	79	40.5	69	58.2	66	74.2*	68	77.9*
smoke	F	person who smokes	64	26.6	72	38.8	75	54.7	81	59.3	65	67.7*
smoker	6	chimney	45	20.0	67	36.1	79	54.4	63	48.8	53	69.8*
smokestack	6	gray	67	41.8	83	24.1	76	34.2	84	54.8	58	65.5
smoky	6	level	67	26.9	83	23.6	76	47.4	84	54.8	58	65.5
smother	F	make unable to get air	64	26.6	72	29.6	75	22.7	81	14.8	65	41.5
smolder	4	burn	65	32.3	71	31.2	75	24.0	66	25.8	60	31.7
smudge	4	dirty mark	56	17.9	77	18.3	79	26.6	76	39.5	47	31.9
smuggle	6	take secretly	65	29.2	71	11.1	75	30.7	66	22.7	60	31.7
smuggler	6	pirate	64	20.3	72	27.3	80	26.3	76	35.5	50	46.0
snack	4	meal	65	29.8	77	37.2	76	39.2	75	57.3	68	57.4
snag	6	sharp point	54	32.8	86	45.9	73	68.2*	77	31.6*	63	83.3*
snail	F	animal	61	20.7	74	18.6	85	34.5	64	31.2	78	48.2*
snap	F	hook	58	20.0	70	34.8	58	50.6	57	55.2	56	47.4
snapshot	6	photograph	70	13.3	69	16.7	87	23.0	67	37.7	76	34.2
snare	6	trap	75	20.6	84	27.0	58	46.6	69	40.0	56	46.4
snarl	6	tangle	68	26.5	74	36.5	76	40.8	70	32.9	69	34.8
snatch	4	grab	65	38.5	61	31.1	90	22.2	67	23.9	73	24.7
sneak		move in a sly way										
sneer		show scorn										

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
snicker	6	laugh	45	20.0	67	20.9	79	20.3	63	23.8	53	32.1
sniff	4	breathe in	66	16.7	73	30.1	69	43.5	70	51.4	66	68.2*
sniffle	6	sniff again and again	67	32.8	70	31.4	73	46.6	72	61.1	73	56.2
snip	6	cut	70	34.3	88	30.7	62	40.3	79	31.6	66	28.8
snob	6	one who admires those with social rank	80	33.8	85	27.1	84	27.4	79	29.1	60	38.3
snoop	6	pry	70	15.7	88	15.9	62	21.0	79	27.8	66	22.7
snooze	6	sleep	58	37.9	70	32.9	58	34.5	57	50.9	56	55.4
snore	4	breathe during sleep with sound	76	23.7	91	26.4	75	42.7	85	43.5	57	56.1
snout	6	nose	45	26.7	67	35.8	79	29.1	63	44.4	53	39.6
snow	F	white flakes	56	33.9	77	59.7	79	73.4*	76	80.3*	47	89.4*
snowbank	4	drift of snow	56	21.4	61	29.5	60	41.7	74	66.2	49	65.3
snowflake	F	piece of snow	66	37.9	98	37.8	66	47.0	60	70.0*	84	73.8*
snowy	F	white	74	51.4	79	68.4*	77	83.1*	80	90.0*	57	86.0*
snuff	F	smell	51	43.1	63	23.8	66	47.0	53	60.4	53	62.3
snug	F	warm	65	24.6	77	24.7	76	28.9	75	13.3	68	16.2
snuggle	6	cuddle	68	25.0	74	25.7	76	28.9	70	27.1	69	24.6
so	F	in that way	65	20.0	71	18.3	75	25.3	66	36.4	60	38.3
soak	F	make wet	67	32.8	70	42.9	73	46.6	72	73.6*	73	72.6*
soapsuds	6	bubbles	65	30.8	61	37.7	90	55.6	67	73.1*	73	68.5*
soapy	4	full of soap	67	19.4	70	32.9	73	32.9	72	51.4	73	41.1
soar	6	fly	69	15.9	93	22.6	70	21.4	80	15.0	70	24.3
sob	F	cry	60	35.0	70	45.7	79	34.2	82	47.6	38	47.4
sober	6	not drunk	57	28.1	64	42.2	63	25.4	76	26.3	53	34.0
sober	6	quiet	41	17.1	57	28.1	70	14.3	71	29.6	51	39.2
society	6	all people	60	28.3	57	28.1	66	34.8	64	32.8	53	66.0
society	6	community	68	29.4	71	38.0	74	56.8	67	61.2	63	69.8*
socket	6	hollow piece for holding something	59	37.3	56	41.1	49	32.7	67	43.3	55	45.5

-236-

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
socks	F	hose	66	24.2	98	31.6	66	54.5	60	51.7	84	67.9*		
sod	F	grass	61	18.0	81	23.5	77	23.4	61	24.6	70	38.6		
sofa	F	couch	74	31.1	79	32.9	77	44.2	80	50.0	57	54.4		
soft	F	not hard	52	21.2	75	46.7	85	63.5	64	67.2*	52	92.3*		
soften	4	make tender	44	22.7	76	23.7	88	46.6	59	52.5	55	65.5		
soggy	6	soaked	68	44.1	74	33.8	76	32.9	70	30.0	69	34.8		
soil	F	earth	65	23.1	89	33.7	69	43.5	71	60.6	66	69.7*		
soldier	F	man who serves in an army	60	31.7	83	51.8	75	68.0*	79	91.1*	60	86.7*		
sole	F	alone	64	20.3	72	20.8	80	17.5	76	17.1	50	28.0		
solid	4	not a liquid or a gas	63	33.3	82	26.8	71	52.1	82	42.7	67	53.7		
solo	6	alone	61	14.8	81	28.4	77	35.1	61	36.1	70	41.4		
soloist	6	performer	54	24.1	86	22.1	73	38.4	77	29.9	63	47.6		
solution	6	answer	78	14.1	73	15.1	81	14.8	81	11.1	71	43.7		
solve	4	find the answer to	66	22.7	73	27.4	66	42.4	86	51.2	71	54.9		
sombrero	6	hat	52	26.9	75	18.7	85	15.3	64	21.9	52	17.3		
some	F	a few	44	22.7	76	38.2	88	52.3	59	71.2*	55	80.0*		
someday	6	at some future time	59	27.1	86	32.6	61	59.0	88	62.5	63	77.8*		
somehow	F	by some means	57	28.1	64	28.1	63	41.3	76	59.2	53	56.6		
someone	F	some person	70	24.3	88	35.2	62	66.1	79	65.8	66	75.8*		
somersault	4	roll	61	41.0	81	28.4	77	23.4	61	18.0	70	12.9		
sometime	F	one day	45	37.8	67	34.3	79	58.2	63	54.0	53	56.6		
sometimes	F	now and then	49	12.2	62	32.3	57	40.4	67	58.2	57	66.7*		
somewhat	6	slightly	79	21.5	76	30.3	91	34.1	64	53.1	69	52.2		
somewhere	F	in some place	49	16.3	56	26.8	72	45.8	63	68.3*	61	77.0*		
son	F	male child	49	20.4	62	48.4	57	64.9	67	79.1*	57	89.5*		
song	F	something to sing	60	26.7	70	45.7	79	73.4*	82	82.9*	38	76.3*		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
songster	6	singer	57	29.8	64	42.2	63	50.0	76	63.2	53	69.8*
sonny	6	boy	63	33.3	82	46.3	71	60.6	82	62.2	67	73.1*
soon	F	in a short time	69	24.6	93	48.4	70	57.1	80	72.5*	70	92.9*
soot	6	black smoke	84	31.0	80	31.3	66	21.2	89	38.2	62	35.5
soothe	6	calm	60	20.0	83	22.9	75	28.0	79	32.9	60	26.7
sop	6	soak	63	23.8	82	20.7	71	35.2	82	37.8	67	44.8
soprano	6	singing voice	44	34.1	76	18.4	88	23.9	59	22.0	55	36.4
sore	F	painful	70	28.6	69	37.7	87	56.3	67	64.2	57	77.2*
soreness	6	pain	65	26.2	89	24.7	69	37.7	71	59.2	66	65.2
sorrow	F	sadness	56	28.6	77	37.7	79	41.8	76	46.1	47	66.0
sorrowful	4	sad	75	34.7	84	38.1	87	48.3	69	73.9*	76	75.0*
sorry	F	sad	61	37.7	81	49.4	85	77.6*	74	74.3*	59	74.6*
sort	F	kind	56	21.4	77	22.1	79	26.6	76	21.1	47	36.2
sound	F	what can be heard	65	24.6	89	36.0	69	49.3	71	81.7*	66	74.2*
soundproof	4	not letting sound pass through	45	22.2	67	29.9	79	24.1	63	39.7	53	45.3
soup	F	food	61	50.8	81	71.6*	77	72.7*	61	80.3*	70	91.4*
sour	F	sharp	75	20.0	88	23.9	77	19.5	74	16.2	72	20.8
south	F	direction	60	20.0	83	50.6	75	69.3*	79	89.9*	60	90.0*
southern	F	toward the south	66	27.3	98	29.6	66	48.5	60	61.7	84	69.0*
souvenir	6	something for remembrance	64	28.1	72	37.5	80	46.3	76	44.7	50	64.0
sovereign	6	ruler	52	28.8	75	14.7	85	22.4	64	26.6	52	15.4
sow	6	pig	71	29.6	87	23.0	72	15.3	80	25.0	56	26.8
space	F	room	58	31.0	70	24.3	58	24.1	57	33.3	56	60.7
spacious	6	roomy	60	11.7	83	24.1	75	25.3	79	40.5	60	25.0
spade	F	tool	65	38.5	89	36.0	69	23.2	71	43.7	66	37.9
spaghetti	6	food	74	36.5	79	57.0	77	55.8	80	61.3	57	68.4*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
spaniel	6	dog	60	15.0	70	24.3	79	27.8	82	22.0	38	31.6
spank	F	hit	51	27.5	63	33.3	66	56.1	53	58.5	53	69.8*
spare	6	do without	60	26.7	70	24.3	79	19.0	82	19.5	38	21.1
spark	4	bit of fire	49	18.4	62	16.1	57	21.1	67	32.8	57	56.1
sparkle	4	shine	49	22.4	62	21.0	57	33.3	67	43.3	57	44.4
sparkler	6	firework	52	32.7	75	45.3	85	47.1	64	48.4	52	61.5
sparrow	F	bird	80	28.8	75	28.0	76	47.4	66	53.0	62	67.7*
spat	5	fight	63	27.0	82	15.9	71	16.9	82	19.5	67	25.4
spatter	6	fall in drops	60	33.3	79	22.8	82	30.5	66	30.3	72	25.0
speak	F	talk	51	29.4	63	30.2	66	60.6	53	64.2	53	83.0*
speaker	F	talker	64	28.1	72	44.4	80	45.0	76	67.1*	50	78.0*
spear	F	weapon	60	15.0	70	31.4	79	30.4	82	42.7	38	47.4
special	4	different	51	29.4	63	41.3	66	47.0	53	56.6	53	64.2
specialist	6	expert	78	16.7	73	19.2	81	23.5	81	30.9	71	45.1
specialize	6	concentrate one's attention	79	20.3	76	38.2	91	35.2	64	43.8	69	53.6
specialty	6	special line of work	60	20.0	70	40.0	79	49.4	82	46.3	38	52.6
species	6	group	49	14.3	62	14.5	57	15.8	67	29.9	57	45.6
speck	6	spot	56	37.5	77	32.5	79	29.1	76	40.8	47	25.5
spectacle	6	display	70	18.6	63	15.9	76	18.4	70	28.6	58	31.0
spectacles	6	glasses	61	29.5	74	24.3	85	28.2	64	26.6	78	26.9
spectacular	6	thrilling	64	28.1	76	28.9	70	42.9	78	44.9	60	60.0
speech	F	talk	65	21.5	77	49.4	76	61.8	75	78.7*	68	80.9*
speechless	4	not able to speak	58	20.7	86	38.4	76	48.7	78	56.4	58	75.9*
speed	F	haste	70	31.4	95	18.9	72	36.1	77	42.9	61	41.0
speedily	6	quickly	61	19.7	74	39.2	85	44.7	64	56.3	76	70.5*
speedometer	6	instrument	74	28.4	79	19.0	77	28.6	80	35.0	57	47.4

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
speedy	4	fast	60	16.7	70	25.7	79	39.2	82	53.7	38	60.5
spell	F	write or say the letters of a word	58	53.4	86	58.1	76	61.8	75	75.6*	58	81.0*
spend	F	pay out money	60	40.0	83	43.4	75	58.7	79	87.3*	60	71.7*
spendthrift	6	person who wastes money	75	17.3	80	35.2	77	49.4	74	66.2	72	63.9
spice	4	seasoning	66	19.7	98	19.4	66	33.3	60	33.3	84	41.7
spicy	6	strong	66	26.0	98	27.6	66	28.8	60	25.0	84	33.3
spider	F	animal	79	39.2	75	36.0	76	69.7*	83	61.4	53	77.4*
spike	F	nail	65	35.4	71	21.1	75	24.0	66	21.2	60	40.0
spill	F	flow out	79	35.4	75	34.7	76	44.7	83	37.3	53	50.9
spin	F	turn	70	44.3	63	30.2	76	43.4	70	47.1	58	65.5
spinal	6	having to do with the backbone	78	23.1	73	16.4	81	18.5	81	25.9	71	47.9
spinach	F	plant	52	21.2	75	40.0	85	57.6	64	46.9	52	76.9*
spindle	6	rod	78	20.5	73	12.3	81	18.5	81	25.9	71	29.6
spine	6	thorn	63	30.2	82	19.5	71	28.2	82	24.4	67	43.3
spine	6	backbone	60	21.7	79	26.6	82	29.3	66	36.4	72	55.6
spite	6	ill will	71	22.5	87	32.2	72	18.1	80	16.3	56	16.1
spire	6	part of a tower	68	25.0	74	28.4	76	28.9	70	15.7	69	29.0
spirit	F	soul	68	16.2	74	27.0	76	38.2	70	47.1	69	40.6
splash	F	wet	63	23.8	82	43.9	71	52.1	82	61.0	67	76.1*
splendid	4	very good	68	42.6	80	37.5	65	32.3	65	33.8	71	31.0
splendor	6	beauty	68	17.6	80	20.0	65	23.1	65	26.2	71	36.6
splint	6	wood	68	30.9	80	32.5	65	40.0	65	27.7	71	21.1
split	4	break	70	24.3	63	22.2	76	38.2	70	35.7	58	58.6
spoil	F	damage	44	18.2	76	18.4	88	48.9	59	44.1	55	63.6
spoke	6	one of the bars of a wheel	44	15.9	76	21.1	88	15.9	59	22.0	55	14.5
spokesman	6	person who speaks for another	-240-79	27.8	75	33.3	76	43.4	63	56.6	53	67.9*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
sponge	6	take up	70	32.9	63	30.2	76	30.3	70	48.6	58	29.3
spook	F	spirit	70	25.7	63	41.3	76	51.3	70	48.6	58	50.0
spool	4	wood on which thread is wound	70	41.4	63	44.4	76	38.2	70	35.7	58	55.2
spoon	F	bowl at the end of a handle	84	42.9	80	52.5	66	66.7*	89	82.0*	62	90.3*
spoonful	4	as much as a spoon can hold	60	18.3	83	36.1	75	45.3	79	60.8	60	45.0
sport	F	game	49	28.6	56	42.9	72	68.1*	63	85.7*	61	63.6*
sportsman	4	person who takes part in sports	49	22.4	56	42.9	72	38.9	63	54.0	61	65.6
sportsmanship	6	fairness	69	29.0	93	39.8	70	42.9	80	42.5	70	57.1
spot	F	mark	71	9.9	87	21.8	72	29.2	80	48.8	56	71.4*
spotless	6	clean	54	18.5	86	29.1	73	45.2	77	45.5	63	65.1
spotlight	6	strong light	50	30.0	60	48.5	61	59.0	60	71.7*	54	74.1*
spout	6	pipe	59	37.3	70	27.1	76	17.1	64	25.0	56	21.4
sprain	6	injure	75	29.3	84	32.1	87	36.8	69	49.3	76	56.6
sprawl	6	spread	78	19.2	79	34.2	69	39.1	66	47.0	68	48.5
spray	6	splash	71	22.9	87	35.6	72	45.6	80	67.5*	56	78.6*
spread	6	stretch	70	22.9	63	38.1	76	40.8	70	45.7	58	56.6
spreader	6	planter	71	19.7	87	35.6	72	20.8	80	27.5	56	35.7
spring	F	jump	79	29.0	75	46.7	76	75.0*	83	81.9*	53	88.7*
spring	F	season	71	35.2	87	24.1	72	19.4	80	33.8	56	51.8
springtime	F	season	66	37.9	73	43.8	69	66.7*	70	80.0*	66	90.9*
springy	6	elastic	60	21.7	70	21.4	79	27.8	82	35.4	38	31.6
sprinkle	F	spray	79	48.1	75	41.3	76	56.6	83	61.4	53	71.7*
sprout	4	grow	70	15.7	63	27.0	76	32.9	70	21.4	58	37.9
spruce	6	tree	79	31.6	75	18.7	76	32.9	83	26.5	53	34.0
spy	6	full of life	79	24.1	75	26.7	76	21.1	83	24.1	53	17.0
spurt	6	flow	79	20.3	75	14.7	76	13.2	83	14.5	53	20.8
spy	6	person who keeps secret watch	70	37.1	95	35.8	72	54.2	77	70.1*	61	90.2*
spyglass	6	telescope	52	21.2	75	34.7	85	51.8	64	50.0	52	80.8*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
squad	6	group	44	15.9	76	28.9	88	34.1	59	42.4	55	54.5
squall	6	cry	79	15.2	75	26.7	76	14.5	83	15.7	53	13.2
square	F	figure	71	21.1	87	35.6	72	45.8	80	45.0	56	64.3
squash	F	squeeze	44	11.4	76	21.1	88	37.5	59	28.8	55	56.4
squat	6	crouch	58	22.4	70	24.3	58	17.2	57	47.4	56	41.1
squat	6	short	70	24.3	95	22.1	72	23.6	77	22.1	61	29.5
squat	6	Indian woman	75	26.7	84	28.6	87	34.5	69	49.3	76	51.3
squeak	F	short cry	79	34.2	75	40.0	76	36.8	83	34.9	53	56.6
squeal	6	cry	71	19.7	87	21.8	72	26.4	80	22.5	56	42.9
squeeze	F	crowd	75	16.0	84	32.1	87	48.3	69	65.2	76	67.1*
squire	6	gentleman	71	23.9	87	25.3	72	19.4	80	20.0	56	17.9
squirr	6	wriggle	71	25.4	67	25.3	72	30.6	80	48.8	56	51.8
squirrel	F	animal	75	37.3	84	60.7	87	82.8*	69	62.6*	76	89.5*
squirr	6	come out in a stream	70	31.4	95	22.1	72	18.1	77	18.2	61	21.3
stab	6	pierce	71	14.1	87	13.8	72	11.1	80	25.0	56	26.8
stable	F	not likely to move	75	28.0	84	27.4	87	31.0	69	46.4	76	38.2
stable	6	barn	60	18.3	57	21.1	66	22.7	64	12.5	53	34.0
stack	F	pile	66	22.7	98	24.5	66	25.8	60	20.0	84	32.1
stadium	6	gymnasium	69	33.3	93	33.3	70	47.1	80	61.3	70	61.4
staff	6	walking stick	60	20.0	57	22.8	66	27.3	64	23.4	53	15.1
stag	6	deer	59	11.9	70	14.3	76	14.5	64	21.9	56	19.6
stage	F	raised floor	75	21.3	84	31.0	87	33.3	69	44.9	76	46.1
stagger	6	walk unsteadily	78	23.1	79	19.0	69	30.4	66	25.8	68	39.7
stagnant	6	not flowing	70	25.7	63	19.0	76	19.7	70	11.4	58	17.2
stain	6	color	59	32.2	70	17.1	76	22.4	64	20.3	56	17.6

-242-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
stair	F	step	74	24.3	79	30.4	77	49.4	80	58.8	57	64.9
stake	6	stick	68	29.4	74	28.4	76	42.1	70	30.0	69	30.4
stake	6	bet	75	18.7	64	25.0	87	21.8	69	21.7	76	30.3
stalk	6	stem	52	21.2	75	28.0	85	40.0	64	34.4	52	51.9
stale	6	not fresh	78	34.6	79	43.0	69	43.5	66	36.4	68	32.4
stall	F	pen	59	22.0	70	30.0	76	17.1	64	29.7	56	14.3
stall	6	delay	78	24.4	79	17.7	69	34.8	66	27.3	68	26.5
stallion	4	horse	69	31.9	76	22.4	64	35.9	77	27.3	52	32.7
stammer	6	repeat the same sound	66	19.7	73	31.5	69	21.7	70	27.1	66	36.4
stamp	F	make a mark	75	34.7	84	38.1	87	56.3	69	58.0	76	67.1*
stampede	6	sudden scattering	50	32.0	68	20.6	61	24.6	60	15.0	54	22.2
stand	F	rise	71	36.6	87	29.9	72	30.6	80	33.8	56	39.3
standard	6	rule	80	12.5	75	14.7	76	26.3	66	31.8	62	37.1
standpoint	6	view	75	20.0	84	25.0	87	28.7	69	30.4	76	43.4
standstill	4	stop	84	33.3	80	41.3	66	36.4	89	37.1	62	46.8
star	F	heavenly body	71	18.3	67	19.5	72	18.1	80	28.8	56	39.3
starch	6	preparation to stiffen clothes	50	34.0	60	27.9	61	34.4	60	41.7	54	53.7
stare	F	look	75	22.7	84	23.8	87	27.6	69	50.7	76	53.9
starling	6	bird	59	26.8	70	20.0	76	19.7	64	17.2	56	26.6
starry	6	shining	61	19.7	61	17.3	65	30.6	74	27.0	59	20.3
start	F	begin	75	22.7	84	38.1	67	57.5	69	71.0*	76	82.9*
startle	6	surprise	79	30.4	75	20.0	76	32.9	83	27.7	53	39.6
startling	6	surprising	75	46.7	84	38.1	87	40.2	69	31.9	76	43.4
starvation	6	hunger	75	20.0	84	23.8	87	34.5	69	33.3	76	44.7
starve	F	suffer hunger	65	32.3	77	27.3	76	47.4	75	66.7*	68	70.6*
statement	4	account	71	31.0	67	23.0	72	51.4	80	52.5	56	39.3

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
statesman	6	person skilled in public affairs	79	30.4	75	25.3	76	44.7	83	57.8	53	75.5*		
static	6	at rest	68	23.5	74	31.1	76	23.7	70	18.6	69	11.6		
station	F	place	79	29.1	75	32.0	76	46.1	83	51.8	53	67.9*		
stationery	6	writing materials	50	18.0	68	11.8	61	19.7	60	26.7	54	35.2		
statue	6	image	61	19.7	81	21.0	85	27.1	74	55.4	59	47.5		
stay	F	remain	79	34.2	75	32.0	76	61.8	83	66.3	53	81.1*		
steadiness	6	firmness	75	21.3	84	27.4	87	17.2	69	33.3	76	30.3		
steady	6	firm	66	24.2	98	21.4	66	16.7	60	31.7	84	44.0		
steak	F	slice of meat	45	48.9	67	43.3	79	55.7	63	76.2*	53	83.0*		
steal	F	rob	79	26.6	75	22.7	76	43.4	63	54.2	53	71.7*		
steam	F	gas	79	25.3	75	25.3	76	25.0	63	41.0	53	60.4		
steamer	F	boat	79	26.6	75	25.3	76	32.9	63	42.2	53	54.7		
steamship	4	boat	79	21.5	75	33.3	76	44.7	63	66.3	53	77.4*		
steed	6	horse	79	26.6	75	12.0	76	19.7	63	12.0	53	15.1		
steep	F	tower	59	20.3	70	27.1	76	35.5	64	42.2	56	53.6		
steer	F	guide	79	31.6	75	30.7	76	53.9	63	65.1	53	61.1*		
steer	6	cattle	64	32.6	76	27.6	70	38.6	73	28.2	60	31.7		
stem	F	part of a plant	70	21.4	80	41.3	58	44.8	74	56.8	67	62.7		
step	F	walk	71	53.5	87	49.4	72	58.3	80	78.8*	56	83.9*		
stepfather	6	man who has married one's mother	70	32.9	63	47.6	76	64.5	70	72.9*	58	62.8*		
stepmother	4	woman who has married one's father	71	35.2	87	32.2	72	55.6	90	72.5*	56	62.1*		
sterilize	6	make free from germs	77	26.0	94	23.4	62	38.7	77	37.7	68	38.2		
sterling	4	containing silver	56	30.4	61	32.8	60	40.0	74	45.9	49	38.8		
stern	6	harsh	79	17.7	76	23.7	91	36.3	64	34.4	69	42.0		
stern	6	rear	61	19.7	81	18.5	85	28.2	74	29.7	59	27.1		
sterness	6	harshness	61	23.0	74	20.3	85	35.3	64	37.5	78	46.2		
stew	6	cook	50	40.0	93	46.2	63	50.8	76	65.8	69	69.6*		

-244-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
steward	4	servant	61	24.6	74	35.1	85	44.7	64	57.8	78	69.2*
stewardess	6	woman on an airplane	50	38.0	93	29.0	63	41.3	76	53.9	69	37.7
stick	F	piece of wood	50	38.0	93	49.5	63	69.0*	76	80.3*	69	66.7*
stiff	F	hard	66	13.6	73	27.4	69	36.2	70	70.0*	66	68.2*
stiffen	6	harden	79	24.1	75	22.7	76	27.6	83	44.6	53	60.4
stiffness	6	firmness	51	21.6	63	19.0	66	31.8	53	34.0	53	50.9
still	F	at rest	51	27.5	63	23.8	66	36.4	53	43.4	53	49.1
stillness	F	quiet	45	13.3	67	23.9	79	46.8	63	58.7	53	50.9
stilts	6	supports	45	28.9	68	42.6	79	40.5	57	70.2*	51	72.5*
sting	F	pain	45	17.8	68	30.9	79	34.2	57	49.1	51	54.9
stingy	6	mean about spending money	51	21.6	63	25.4	66	19.7	53	32.1	53	30.2
sink	4	bad smell	45	31.1	68	29.4	79	35.4	57	50.9	51	68.6*
stirrup	6	support for a foot	44	38.6	76	23.7	88	17.0	59	15.3	55	38.2
stitch	F	sew	61	16.4	81	23.5	77	28.6	61	39.3	70	54.3
stock	F	goods	45	48.9	68	33.8	79	35.4	57	36.8	51	41.2
stockholder	6	stockowner	45	46.7	68	39.7	79	44.3	57	54.4	51	62.7
stocking	F	covering for the leg	65	33.8	91	50.5	69	55.1	68	72.1*	64	82.8*
stomach	6	part of the body	70	31.4	63	46.0	76	55.3	70	72.9*	58	69.7*
stone	F	rock	65	26.2	61	47.5	90	67.8*	67	77.6*	73	80.8*
stony	F	hard	66	21.2	73	20.5	69	31.9	70	44.3	66	56.1
stool	F	seat	79	21.5	76	27.6	91	36.3	64	32.8	69	49.3
stop	F	halt	79	24.1	76	34.2	91	52.7	64	73.4*	69	78.3*
stopper	6	plug	58	24.1	86	22.1	76	32.9	78	21.8	58	31.0
store	F	shop	57	54.4	64	65.6	63	74.6*	76	89.5*	53	86.8*
storage	6	warehouse	57	24.6	64	35.9	63	34.9	76	48.7	53	54.7
storehouse	6	vault	60	20.0	79	16.5	82	35.4	66	33.3	72	51.4

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
storekeeper	6	merchant	51	41.2	63	47.6	66	57.6	53	60.4	53	77.4*		
stork	F	bird	48	35.4	70	21.4	59	22.0	66	24.2	57	33.3		
storm	F	strong wind with rain	76	34.2	87	47.1	73	65.8	78	78.2*	63	85.7*		
stormy	F	windy	70	27.1	80	43.8	58	55.2	74	68.9*	67	79.1*		
story	F	tale	57	21.1	64	51.6	63	57.1	76	55.3	53	77.4*		
stout	6	fat	80	26.3	75	25.3	76	21.1	66	16.7	62	27.4		
stout	6	brave	63	19.0	82	14.6	71	32.4	82	25.6	67	31.3		
stove	F	oven	61	42.6	81	48.1	77	59.7	61	82.0*	70	90.0*		
stowaway	6	person who hides	57	10.5	64	34.4	63	25.4	76	40.8	53	32.1		
straddle	6	sit with the legs apart	59	23.7	86	22.1	61	21.3	88	33.0	63	28.6		
straight	F	without a bend	50	24.0	93	29.0	63	38.1	76	42.1	69	43.5		
straightaway	6	at once	50	18.0	93	15.1	63	9.5	76	15.8	69	15.9		
straighten	6	put in order	50	20.0	93	24.7	63	27.0	76	32.9	69	39.1		
strain	6	injury	68	23.5	74	32.4	76	40.8	70	47.1	69	43.5		
strain	6	overwork	68	30.9	74	23.0	76	32.9	70	34.3	69	44.9		
strainer	6	filter	61	16.4	81	35.8	77	29.9	61	41.0	70	41.4		
strait	6	channel	70	25.7	80	35.0	58	31.0	74	51.4	67	59.7		
strand	6	leave	58	32.8	86	27.9	76	22.4	78	25.6	58	37.9		
strand	6	thread	70	21.4	80	11.3	58	17.2	74	16.2	67	16.4		
strange	F	queer	67	16.4	83	27.7	76	25.0	84	42.9	58	48.3		
strangeness	6	queerness	51	31.4	63	27.0	66	51.5	53	45.3	53	71.7*		
stranger	F	person not known	60	26.7	79	26.6	82	41.5	66	50.0	72	59.7		
strangle	6	choke	45	20.0	67	28.4	79	29.1	63	42.9	53	34.0		
strap	F	strip of leather	57	22.8	64	39.1	63	47.6	76	46.1	53	43.4		
straw	F	grain	63	27.0	82	35.4	71	54.9	82	58.5	67	77.6*		
strawberry	F	fruit	65	47.7.	61	65.6	90	78.9*	67	88.1*	73	93.2*		

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
stray	6	wander	65	21.5	61	19.7	90	27.8	67	29.9	73	31.5		
streak	6	mark	65	35.4	61	24.6	90	30.0	67	26.9	73	30.1		
stream	F	body of water	65	23.1	61	45.9	90	55.6	67	73.1*	73	75.3*		
streamer	6	flag	65	24.6	61	23.0	90	15.6	67	7.5	73	15.1		
street	F	road	66	47.0	98	44.9	66	68.2*	60	88.3*	84	94.0*		
strength	6	power	61	13.1	81	21.0	77	28.6	61	26.2	70	55.7		
strengthen	6	make stronger	66	47.0	73	32.9	69	31.9	70	44.3	66	39.4		
stretch	F	draw out	57	24.6	64	14.1	63	22.2	76	34.2	53	34.0		
stretcher	6	bed for carrying the sick	60	28.3	79	22.8	82	29.3	66	37.9	72	31.9		
strike	6	hit	65	15.4	89	30.3	69	50.7	71	60.6	66	66.7*		
strike	6	find	61	23.0	81	25.9	77	20.8	61	21.3	70	17.1		
strike	6	stop work	75	40.0	88	22.7	77	39.0	74	52.7	72	56.9		
stripe	F	band	67	16.4	70	25.7	73	35.6	72	37.5	73	42.5		
strip	F	piece	60	20.0	79	27.8	82	41.5	66	50.0	72	54.2		
stroke	6	touch gently	64	21.9	72	27.8	80	31.3	76	43.4	50	36.0		
stroke	6	sudden attack	60	23.3	79	25.3	82	54.9	66	63.6	72	66.7*		
stroll	6	walk	77	40.3	94	24.5	62	21.0	77	31.2	68	36.8		
strong	F	having much power	60	26.7	57	52.6	66	63.6	64	60.9	53	81.1*		
struggle	6	fight	60	31.7	79	16.5	82	25.6	66	27.3	72	38.9		
strut	6	walk	60	20.0	79	27.8	82	14.6	66	16.7	72	9.7		
stub	4	short piece	71	22.5	87	20.7	72	15.3	80	27.5	56	26.8		
stubborn	6	firm	49	28.6	62	25.8	57	17.5	67	19.4	57	36.8		
stubby	4	short and thick	60	28.3	79	26.6	82	18.3	66	24.2	72	18.1		
student	6	pupil	60	21.7	79	19.0	82	39.0	66	72.7*	72	79.2*		
studio	6	workroom	57	22.8	64	42.2	63	42.9	76	64.5	53	75.5*		
studious	6	fond of study	60	26.7	79	30.4	82	43.9	66	47.0	72	45.8		

247-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
study	F	try to learn	60	33.3	79	39.2	82	68.3*	66	81.8*	72	86.1*
stuff	F	matter	60	35.0	79	21.5	82	24.4	66	37.9	72	48.6
stuffing	6	filling	60	26.7	79	35.4	82	41.5	66	60.6	72	51.4
stuffy	6	lacking fresh air	60	16.7	79	24.1	82	20.7	66	33.3	72	29.2
stumble	4	fall	76	13.2	87	18.4	73	23.3	78	37.2	63	49.2
stump	F	lower end of a tree	60	20.0	79	26.6	82	32.9	66	42.4	72	37.5
stun	6	shock	59	25.4	56	25.0	49	32.7	67	28.4	55	27.3
stunning	6	beautiful	78	23.1	82	26.8	82	17.1	85	20.0	61	11.5
stunt	4	trick	45	26.7	68	26.5	79	35.4	57	21.1	51	21.6
stupid	4	dull	70	40.0	88	22.7	62	46.8	79	49.4	66	60.6
stupidity	6	lack of intelligence	78	29.5	73	34.2	81	50.6	81	54.3	71	60.6
sturdy	6	strong	60	23.3	83	31.3	75	40.0	79	49.4	60	46.7
stutter	6	repeat the same sound	60	26.7	79	26.6	82	28.0	66	40.9	72	30.6
sty	6	pen	54	31.5	86	24.4	73	17.8	77	11.7	63	19.0
style	6	fashion	68	33.8	80	15.0	65	47.7	65	55.4	71	66.2
stylish	6	in fashion	64	37.5	72	30.6	80	40.0	76	48.7	50	60.0
submarine	4	boat	70	40.0	95	28.4	72	41.7	77	46.8	61	65.6
subscriber	6	contributor	54	27.8	86	29.1	73	41.1	77	44.2	63	54.0
subnormal	6	below average	60	28.3	70	28.6	79	38.0	82	45.1	38	44.7
subscription	6	contribution	75	26.7	88	30.6	77	41.6	74	35.1	72	45.8
substance	6	material	44	36.4	76	27.6	88	47.7	59	50.8	55	54.5
substitute	4	put in the place of	68	14.7	71	22.5	74	27.0	67	38.8	63	55.6
substitution	6	putting in place of	68	19.1	80	30.0	69	33.3	70	42.9	59	57.6
subtract	4	take away	66	27.3	98	37.8	66	59.1	60	68.3*	84	75.0*
subtraction	6	taking one number from another	66	43.9	73	56.2	66	62.1	86	70.9*	71	70.4*
suburban	6	neighboring	75	20.0	88	22.7	77	24.7	74	21.6	72	31.9
subway	6	underground	56	23.2	77	45.5	79	55.7	76	57.9	47	83.0*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
succeed	6	do well	75	25.3	88	22.7	77	39.0	74	40.5	72	58.3
success	6	good fortune	75	28.0	84	22.6	87	41.4	69	50.7	76	57.9
successful	6	triumphant	75	16.0	84	19.0	87	26.4	69	30.4	76	46.1
such	F	of that kind	54	37.0	86	32.6	73	34.2	77	44.2	63	66.7*
suck	F	draw into the mouth	66	21.2	73	21.9	66	39.4	86	32.6	71	35.2
sucker	4	fool	76	27.6	91	11.0	75	32.0	85	44.7	57	54.4
suction	6	process of drawing	65	30.8	77	22.1	76	30.3	75	32.0	68	36.8
sudden	F	quick	65	32.3	91	44.0	69	43.5	68	61.8	64	68.8*
suddenness	6	quickness	76	23.7	91	23.1	75	33.3	85	48.2	57	50.9
suds	6	soapy water	65	27.7	91	25.3	69	40.6	68	58.8	64	50.0
sue	6	start a lawsuit against	67	13.4	83	26.5	76	28.9	84	35.7	58	41.4
suede	6	leather	50	16.0	93	14.0	63	20.6	76	25.0	69	17.4
suffer	6	feel pain	56	26.8	77	31.2	79	44.3	76	40.8	47	63.8
sufferer	4	victim	74	24.3	79	17.7	77	37.7	80	38.8	57	50.9
suffering	6	pain	65	21.5	61	19.7	90	33.3	67	34.3	73	58.9
suffix	6	addition to the end of a word	58	20.7	70	22.9	58	27.6	57	40.4	56	64.3
suffocate	6	keep from breathing	68	19.1	71	43.7	74	37.8	67	34.3	63	47.6
suffocation	4	choking	60	25.0	70	21.4	79	27.8	82	26.8	38	39.5
suggest	4	bring to mind	71	14.1	90	14.3	79	17.7	65	36.9	64	48.4
suggestion	4	hint	64	21.9	76	15.8	70	21.4	78	16.7	60	25.0
suicide	6	killing	66	33.3	98	21.4	66	22.7	60	15.0	84	32.1
suit	F	set of clothes	64	50.0	76	50.0	70	65.7	70	70.5*	60	83.3*
suitable	6	proper	64	31.3	76	26.3	70	27.1	70	34.6	60	46.7
suitcase	4	traveling bag	61	26.2	81	30.9	77	22.1	61	44.3	70	75.7*
suite	6	rooms	74	36.5	79	43.0	77	35.1	80	23.8	57	26.3
sulk	6	bad humor shown by silence	58	24.1	70	35.7	58	19.0	57	24.6	56	46.2
sullen	6	silent	45	28.9	67	38.8	79	34.2	63	36.5	53	49.1

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
sulphur	6	yellow substance	68	32.4	80	33.8	69	40.6	70	38.6	59	50.8
sultan	6	ruler	61	16.4	74	21.6	85	21.2	64	18.8	78	12.8
sun	F	the whole	61	18.0	74	37.8	85	40.0	64	40.6	78	65.4
summarize	6	review	58	19.0	70	28.6	58	24.1	57	40.4	56	57.1
summary	6	review	50	6.0	93	18.3	63	31.7	76	43.4	69	47.8
summer	F	season	50	40.0	93	45.2	63	77.8*	76	80.3*	69	76.3*
sun	F	heavenly body	66	33.3	90	41.0	66	62.1	60	66.7*	84	75.0*
sunbeam	4	ray	65	24.6	61	21.3	90	20.0	67	29.9	73	37.0
sundae	6	ice cream with syrup	69	27.5	91	39.6	83	48.2	69	53.6	61	60.7
Sunday	F	day of the week	59	47.5	70	68.6*	76	69.7*	64	87.5*	56	83.9*
sundial	6	instrument for telling time	78	25.6	79	24.1	69	42.0	66	39.4	68	42.6
sundown	4	sunset	66	36.4	73	39.7	69	52.2	70	65.7	66	74.2*
sunflower	F	plant	57	42.1	64	64.1	63	74.6*	76	81.6*	53	86.8*
sunken	6	fallen in	64	23.4	76	25.0	70	35.7	78	42.3	60	51.7
sunless	4	dark	75	29.3	88	33.0	77	49.4	74	55.4	72	70.8*
sunlight	F	daytime	80	25.0	75	34.7	76	52.6	66	77.3*	62	85.5*
sunny	F	bright	41	26.8	57	52.6	70	65.7	71	77.5*	51	80.4*
sunrise	F	dawn	58	25.9	86	37.2	76	35.5	78	50.0	58	60.3
sunset	F	the going down of the sun	49	22.4	69	37.7	65	52.3	79	59.5	49	77.6*
sunshine	F	light	68	33.8	80	45.0	69	63.8	70	82.9*	59	86.4*
sunshiny	4	bright	66	28.8	73	38.4	69	50.7	70	70.0*	66	89.4*
sunstroke	6	illness	60	18.3	79	16.5	82	19.5	66	27.3	72	31.9
superintendent	6	manager	66	27.3	73	32.9	66	36.4	86	54.7	71	71.0*
superior	6	better	65	26.2	61	13.1	90	22.2	67	22.4	73	27.4
superman	6	superior being	57	29.8	64	31.3	63	33.3	76	39.5	53	47.2
supermarket	6	store	70	41.4	95	46.3	72	59.7	77	68.8*	61	78.7*

WORD	DEFINITION	AGES									
		8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
		N	Z	N	Z	N	Z	N	Z	N	Z
superstition	belief	57	28.1	64	12.5	63	7.9	76	31.6	53	28.3
supervisor	manager	45	17.8	67	41.8	79	40.5	63	71.4*	53	69.8*
supper	meal	45	24.4	67	34.3	79	59.5	63	76.2*	53	79.2*
supply	provide	52	19.2	75	17.3	85	24.7	64	39.1	52	55.8
support	hold up	50	18.0	93	25.8	63	28.6	76	42.1	69	49.3
support	provide for	51	27.5	63	25.4	66	43.9	53	58.5	53	75.5*
supporter	helper	68	22.1	80	28.8	69	33.3	70	48.6	59	61.0
suppose	believe	68	20.6	80	31.3	69	34.8	70	54.3	59	61.0
supreme	highest	68	14.7	80	13.8	69	26.1	70	24.3	59	27.1
surprise	come upon suddenly	68	33.8	80	33.8	69	47.8	70	60.0	59	71.2*
surprising	unexpected	68	17.6	80	28.8	69	40.6	70	61.4	59	57.6
sure	certain	52	11.5	75	25.3	85	36.5	64	39.1	52	71.2*
surely	certainly	57	24.6	64	35.9	63	39.7	76	56.6	53	71.7*
surf	waves	45	13.3	68	23.5	79	34.2	57	43.9	51	58.8
surface	top	52	23.1	75	29.3	85	23.5	64	35.9	52	53.8
surgeon	doctor	61	21.3	81	22.2	77	24.7	61	27.9	70	42.9
surgery	operation	68	32.4	80	25.0	69	27.5	70	44.3	59	52.5
surrender	give up	61	34.4	81	25.9	85	23.5	74	37.8	59	37.3
surround	shut in	64	21.9	72	15.3	80	28.8	76	23.7	50	32.0
surroundings	neighborhood	68	35.3	80	21.3	69	33.3	70	45.7	59	37.3
survive	remain alive	65	26.2	61	31.1	90	28.9	67	46.3	73	49.3
survivor	person that remains alive	71	25.4	98	22.4	79	41.8	65	40.0	64	53.1
suspect	think	68	22.1	80	25.0	64	28.1	68	30.9	71	35.2
suspect	believe guilty without proof	68	20.6	80	20.0	69	20.3	70	24.3	59	40.7
suspenders	straps	68	32.4	80	26.3	69	36.2	70	27.1	59	35.6
suspense	being uncertain	78	16.7	79	27.8	69	31.9	66	33.3	68	48.5

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
suspicion	6	doubt	68	10.3	80	22.5	69	30.4	70	25.7	59	37.3		
suspicious	6	doubtful	64	21.9	76	25.0	70	21.4	78	30.8	60	36.7		
swamp	F	wet land	68	42.6	80	40.0	69	49.3	70	68.6*	59	81.4*		
swan	F	bird	49	38.8	69	42.0	65	44.6	79	49.4	49	55.1		
swap	6	trade	68	26.5	80	21.3	69	23.2	70	37.1	59	30.5		
swarm	6	crowd	68	25.0	80	31.3	69	36.2	70	32.9	59	50.8		
swat	F	hit	68	17.6	80	21.3	69	29.0	70	31.4	59	25.4		
sway	4	swing	61	39.3	81	28.4	85	30.6	74	24.3	59	39.0		
sway	6	influence	68	19.1	80	13.8	69	21.7	70	20.0	59	16.9		
sweat	F	state on oath	80	40.0	75	41.3	76	31.6	66	28.8	62	48.4		
sweater	F	knitted jacket	68	41.2	80	55.0	69	60.9	70	87.1*	59	63.1*		
sweep	F	clean with a broom	61	34.4	81	48.1	85	61.2	74	81.1*	59	76.0*		
sweeper	4	cleaner	58	29.3	70	50.0	58	62.1	57	70.2*	56	63.9*		
sweeten	6	sugar	66	27.3	93	29.6	66	50.0	60	56.7	84	71.4*		
sweetheart	F	lover	68	38.2	80	36.8	69	66.7*	70	78.6*	59	86.1*		
swell	F	grow	68	20.6	80	22.5	69	33.3	70	30.0	59	39.0		
sweave	6	turn	78	21.8	82	12.2	82	23.2	85	16.5	61	23.0		
swift	F	quick	68	33.8	80	35.0	69	27.5	70	51.4	59	54.2		
swiftness	6	speed	49	16.4	62	22.6	57	28.1	67	40.3	57	54.4		
swim	F	move in the water	70	42.9	80	77.5*	58	84.5*	74	85.1*	67	95.5*		
swindle	6	cheat	78	6.4	82	17.1	82	15.9	85	28.2	61	23.0		
swindler	6	person who cheats	68	25.0	80	40.0	69	34.8	70	34.3	59	44.1		
swine	6	pigs	75	17.3	84	14.3	87	17.2	69	15.9	76	15.8		
swing	F	move back and forth	52	28.8	75	36.0	85	49.4	64	59.4	52	78.8*		
swish	6	move with a hissing sound	52	30.8	75	28.0	85	36.5	64	42.2	52	32.7		

-252-

WORD	DATE GRADE	DEFINITION	AGES											
			9 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
switchboard	6	call panel	79	27.8	76	31.6	91	29.7	64	37.5	69	49.3		
switchman	6	railroad man	52	25.0	75	36.0	85	47.1	64	50.0	52	44.2		
sword	F	weapon	80	26.3	75	29.3	76	34.2	66	50.0	62	67.7*		
syllable	6	part of a word	56	17.9	61	21.3	60	40.0	74	60.8	49	77.6*		
symbol	6	sign	64	25.0	76	31.6	70	38.6	78	39.7	60	61.7		
sycamore	6	tree	68	20.6	80	25.0	69	14.5	70	20.0	59	13.6		
sympathetic	6	kindly	68	25.0	80	25.0	69	42.0	70	30.0	59	44.1		
sympathy	6	sharing sorrow	59	20.3	70	37.1	76	35.5	64	42.2	56	55.4		
syrup	6	sweet liquid	68	23.5	80	36.3	69	59.4	70	68.6*	59	64.4*		
sympathize	6	share a feeling	44	18.2	76	18.4	68	23.9	59	23.7	55	47.3		
system	6	parts forming a whole	66	27.3	90	24.5	66	21.2	60	30.3	84	52.4		
system	6	plan	66	36.4	73	21.9	69	26.1	70	27.1	66	33.3		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
tab	6	flap	58	32.6	86	27.9	76	32.9	78	35.9	58	46.6
table	F	furniture	61	34.4	74	55.4	85	71.8*	64	78.1*	78	92.3*
tablecloth	F	covering	51	27.5	63	47.6	66	74.2*	53	73.6*	53	81.1*
tablet	F	pad	59	39.0	86	40.7	61	55.7	88	56.8	63	74.6*
tablespoon	F	large spoon	65	23.1	91	44.0	69	47.8	68	76.5*	64	87.5*
tableware	4	knives, forks, and spoons	56	35.7	61	45.9	60	48.3	74	77.0*	49	79.6*
tack	F	nail	58	32.8	86	43.0	76	39.5	78	50.0	58	65.5
tackle	6	equipment	77	29.9	94	28.7	62	32.3	77	40.3	68	38.2
tackle	6	try to deal with	69	24.6	91	19.8	83	37.3	69	27.5	61	45.9
tadpole	4	frog	67	31.3	33	38.6	76	42.1	84	54.8	58	56.9
tag	F	ticket	66	30.3	73	43.8	69	37.7	70	62.9	66	59.1
tail	F	rear	71	28.2	98	25.5	79	46.8	65	55.4	64	56.3
take	F	get hold of	69	29.0	76	36.8	64	50.0	77	68.8*	52	69.2*
talcum	6	powder	77	22.1	94	30.9	62	33.9	77	42.9	68	32.4
tale	F	story	66	33.3	73	35.6	69	36.2	70	50.0	66	56.1
talent	6	ability	68	17.6	71	23.9	74	32.4	67	28.4	63	44.4
talk	F	speak	68	22.1	71	42.3	74	39.2	67	71.6*	63	77.8*
talker	F	speaker	71	25.4	98	30.6	79	53.2	65	67.7*	64	82.8*
call	F	high	58	32.8	86	45.3	76	65.8	78	73.1*	58	62.8*
callow	6	fat	80	32.5	75	20.0	76	18.4	66	28.8	62	14.5
came	F	gentle	77	27.3	94	23.4	62	40.3	77	49.4	68	51.5
camper	6	meddle	65	27.7	71	23.9	75	16.0	66	22.7	60	21.7
can	F	brown	66	42.4	73	46.6	69	55.1	70	78.6*	66	81.8*
cang	6	strong taste	64	32.8	76	51.3	70	51.4	78	59.0	60	65.0
cangle	4	knot	52	28.8	75	34.7	85	35.3	64	32.8	52	40.4
cap	F	light blow	66	15.2	73	26.0	69	20.3	70	21.4	66	30.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
tape	F	long strip	66	22.7	73	35.6	69	43.5	70	67.1*	66	69.7*
taploca	6	a food	52	34.6	75	30.7	85	25.9	64	29.7	52	46.2
tardy	F	late	58	37.9	86	27.9	76	21.1	78	35.9	58	50.0
target	4	thing aimed at	75	22.7	84	25.0	87	40.2	69	43.5	76	39.5
tarish	6	dull	69	14.5	93	19.4	70	24.3	80	30.0	70	37.1
carry	6	like tar	64	31.3	72	31.9	80	32.5	76	38.2	50	46.0
task	F	duty	52	25.0	75	24.0	85	32.9	64	25.0	52	36.5
tassel	6	hanging bunch of threads	75	10.7	84	23.8	87	24.1	69	27.5	76	31.6
taste	F	small amount	84	29.8	80	38.8	66	43.9	89	50.6	62	59.7
tasteless	6	flavorless	80	32.5	85	45.9	84	52.4	79	62.0	60	76.7*
tasty	4	tasting good	73	38.4	71	38.0	73	50.7	72	63.9	67	71.6*
tattered	6	corn	61	21.3	74	21.6	85	25.9	64	32.8	78	19.2
tattoo	6	mark the skin	44	36.4	76	34.2	88	30.7	59	35.6	55	49.1
tavern	5	inn	75	17.3	84	14.3	87	25.3	69	30.4	76	34.2
tax	F	charge	60	20.0	79	32.9	32	50.0	66	71.2*	72	83.3*
taxation	6	amount people pay for the support of government	77	22.1	94	29.8	62	53.2	77	66.2	68	73.5*
taxi	6	automobile for hire	73	30.1	71	49.3	73	56.2	72	73.6*	67	76.1*
tea	F	a drink	56	35.7	61	60.7	60	80.0*	74	93.2*	49	87.8*
teach	F	show how to do	79	29.1	75	29.3	76	52.6	83	56.6	53	75.5*
teacher	F	schoolmaster	71	54.9	87	65.5	72	88.9*	80	90.0*	56	96.4*
team	F	group	52	23.1	75	34.7	85	58.8	64	68.8*	52	90.4*
teamwork	6	cooperation	56	19.6	61	37.7	60	30.0	74	41.9	49	65.3
teapot	4	container	52	32.7	75	34.7	85	42.4	64	42.2	52	57.7
tear	F	pull apart	60	25.0	79	17.7	82	35.4	66	56.1	72	59.7
tearful	6	weeping	73	27.4	71	21.1	73	30.1	72	55.6	67	55.2
tease	F	bother	65	21.5	91	20.9	69	34.8	68	55.9	64	73.4*

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
teaspoon	F	a spoon	50	40.0	93	45.2	63	66.7*	76	86.8*	69	73.9*		
tedious	4	dull	71	21.1	98	22.4	79	15.2	65	20.0	64	21.9		
teens	4	years of life	45	22.2	68	27.9	79	46.8	57	75.4*	51	78.4*		
teeter	6	seesaw	74	31.1	79	25.3	77	32.5	80	32.5	57	26.3		
telegram	4	message	50	28.0	68	25.0	61	42.6	60	43.3	54	66.7*		
telegraph	4	wire	45	20.0	67	25.4	79	48.1	63	58.7	53	64.2		
telephone	F	call	79	43.0	76	51.3	91	72.5*	64	89.1*	69	89.9*		
telescope	4	field glass	50	30.0	68	33.8	61	37.7	60	46.7	54	74.1*		
tell	F	say	58	29.3	70	57.1	58	72.4*	57	77.2*	56	89.3*		
teller	5	banker	58	29.3	86	24.4	76	35.5	78	39.7	58	46.6		
telltale	6	gossip	44	18.2	76	31.6	88	35.2	59	32.2	55	50.9		
temper	F	angry state of mind	75	16.0	84	16.7	87	32.2	69	44.9	76	32.9		
temperate	6	mild	68	25.0	74	12.2	76	38.2	70	40.0	69	43.5		
temperature	4	heat	59	22.0	56	41.1	49	55.1	67	58.2	55	67.3*		
temple	4	house of God	44	27.3	76	28.9	88	38.6	59	30.5	55	56.4		
temple	6	part of the forehead	80	23.8	75	28.0	76	32.9	66	25.8	62	38.7		
temporary	6	for a short time	66	22.7	73	19.2	66	16.7	86	33.7	71	36.6		
tempt	6	attract	73	23.3	71	19.7	73	20.5	72	23.6	67	29.9		
temptation	6	attraction	50	40.0	93	47.3	63	61.9	76	63.2	69	49.3		
ten	F	one more than nine	69	44.9	91	57.1	83	72.3*	69	87.0*	61	82.0*		
tenant	6	person paying rent	67	19.4	83	25.3	76	32.9	84	42.9	58	48.3		
tend	6	be likely	65	32.3	77	26.0	76	19.7	75	22.7	68	27.9		
tender	4	soft	60	18.3	67	26.9	79	22.8	81	43.2	62	64.5		
tennis	F	a game	50	24.0	93	36.6	63	57.1	76	69.7*	69	85.5*		
tenor	6	male voice	65	18.5	77	28.6	76	34.2	75	38.7	68	45.6		
tense	6	fprm of the verb that shows time	69	21.7	76	22.4	64	37.5	77	46.8	52	61.5		

-255a-

-25a-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
tense	6	strained	68	29.4	80	23.8	69	33.3	70	22.9	59	27.1
teat	F	cover	66	25.8	73	42.5	66	59.1	86	68.6*	71	71.8*
term	F	space of time	80	26.3	75	34.7	76	39.5	66	40.9	62	43.5
terminal	6	end part	64	21.9	76	15.8	70	17.1	78	24.4	60	36.7
termite	4	insect	64	23.4	76	22.4	70	18.6	78	25.6	60	33.3
terrace	6	raised land	79	24.1	75	30.7	76	25.0	83	25.3	53	32.1
terrible	F	awful	66	15.2	98	25.5	66	50.0	60	55.0	84	66.7*
terrier	6	dog	66	22.7	98	14.3	66	15.2	60	36.7	84	26.2
terrific	6	great	65	21.5	91	17.6	69	21.7	68	23.5	64	37.5
terrify	6	frighten	66	24.2	98	29.6	66	33.3	60	48.3	84	59.5
territory	6	land	61	16.4	81	14.8	77	23.4	61	31.1	70	55.7
terror	6	fear	65	21.5	91	22.0	69	27.5	68	42.6	64	53.1
terrorist	6	bully	49	16.3	69	17.4	65	18.5	79	30.4	49	30.6
test	F	try	65	43.1	91	45.1	69	46.4	68	54.4	64	60.8*
testament	6	the Bible	66	39.4	98	42.9	66	59.1	60	56.7	84	76.2*
tester	6	experimenter	69	21.7	76	28.9	64	37.5	77	50.6	52	51.9
testimony	6	statement used for evidence	70	27.1	63	33.3	76	51.3	70	44.3	58	67.2*
textbook	6	book for study	66	31.8	98	34.7	66	48.5	60	60.0	84	76.2*
textile	6	cloth	66	28.8	98	18.4	66	18.2	60	13.3	84	33.3
than	F	compared to	65	13.8	77	20.8	76	36.8	75	41.3	68	50.0
thank	F	be grateful	68	23.5	71	35.2	74	48.6	67	62.7	63	69.8*
thankful	F	grateful	61	24.6	81	28.4	77	28.6	61	47.5	70	62.9
thankfulness	6	thanks	45	22.2	67	34.3	79	53.2	63	57.1	53	71.7*
thankless	6	ungrateful	59	25.4	56	48.2	49	57.1	67	65.7	55	72.7*
thaw	F	melt	65	15.4	91	25.3	69	17.4	68	19.1	64	28.1
the	F	a certain	68	14.7	80	22.5	69	24.6	70	30.0	59	44.1
theater	F	place where plays are shown	84	27.4	80	36.3	66	40.9	89	56.2	62	74.2*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
thee	F 4	you	70	25.7	88	20.5	62	40.3	79	43.0	66	47.0
theft	F 4	stealing	57	31.6	64	29.7	63	54.0	76	56.6	53	62.3
their	F 6	of them	64	32.8	76	56.6	70	68.6*	78	65.4	60	80.0*
theme	F 6	topic	77	26.0	94	30.9	62	25.8	77	35.1	68	39.7
then	F 6	at that time	60	35.0	67	34.3	79	45.6	81	56.8	62	58.1
thenceforth	F 6	from then on	65	20.0	77	20.8	76	10.5	75	21.3*	68	17.6
there	F 6	in that place	58	37.9	86	48.8	76	61.8	78	70.5*	58	91.4*
thereabouts	6	near that place	77	27.3	94	22.3	62	29.0	77	41.6	58	38.2
thereby	6	in that way	58	29.3	86	23.3	76	30.3	78	50.0	58	67.2*
therefore	6	for that reason	77	33.8	94	23.4	62	27.4	77	29.9	68	42.6
thereto	6	also	69	21.7	76	22.4	64	26.6	77	31.2	52	50.0
thermometer	6	instrument for measuring temperature										
thicken	4	make thick	51	47.1	63	47.6	66	59.1	53	71.7*	53	77.4*
thicket	6	shrubs	68	32.4	71	43.7	74	41.9	67	59.7	66	60.3
thief	F 6	person who steals	70	32.9	88	28.4	62	54.8	79	51.9	66	62.1*
thieve	6	steal	69	34.8	91	33.0	83	51.8	69	62.3	61	68.9*
thievish	6	given to stealing	65	20.0	91	29.6	69	34.8	68	50.0	64	62.5
thigh	6	part of the leg	73	26.0	71	27.8	73	39.7	72	59.7	67	59.7
thimble	F 6	cap worn on the finger	60	20.0	79	30.2	82	30.5	66	34.8	72	51.4
thin	F 6	not thick	58	19.0	86	32.6	76	35.5*	78	48.7	58	58.6
think	F 4	use the mind	76	38.2	91	34.2	75	58.0	85	85.9*	67	82.4*
thinker	F 4	man of learning	78	38.5	79	28.2	69	45.2	66	63.6*	57	89.5*
third	F 4	next after second	73	26.0	71	28.7	73	57.8	72	70.8*	67	67.2*
thirsty	F 4	without water	69	36.2	76	48.7	64	58.0	77	80.5*	52	84.6*
thistle	6	plant	65	36.9	89	38.2	69	58.0	71	73.2*	66	74.2*
			52	15.4	75	16.0	85	17.6	64	17.2	52	25.0

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
thirst	F	desire to drink	66	27.3	73	39.7	69	53.6	70	67.1*	66	77.3*
thirty	F	three times ten	69	43.5	76	55.3	64	56.3	77	74.0*	52	73.1*
thorn	F	point on a stem	50	20.0	66	29.4	61	39.3	60	33.3	54	38.9
thorny	6	pointed	69	27.5	93	30.1	70	44.3	80	38.8	70	35.7
thoroughbred	6	pure breed	65	32.3	91	20.9	69	33.3	68	36.8	64	35.9
thou	6	you	45	26.7	67	23.9	79	31.6	63	50.8	53	53.5
though	F	even if	65	13.2	77	6.5	76	11.8	75	21.3	68	22.1
thought	F	idea	65	20.0	89	27.0	69	49.3	71	73.2*	66	60.6
thoughtful	6	considerate	69	34.0	76	38.2	64	57.8	77	74.0*	52	71.2*
thoughtfulness	6	care	51	25.5	63	25.4	66	37.9	53	56.6	53	64.2
thousand	F	ten hundred	58	36.2	86	55.8	76	69.7*	78	78.2*	58	89.7*
thrash	6	beat	69	15.9	76	15.8	64	14.1	77	14.3	52	19.2
thrash	6	toss	68	26.5	80	21.3	69	34.8	70	37.1	59	42.4
thrasher	6	bird	59	23.7	86	22.1	61	16.4	88	21.6	63	11.1
thread	F	fine cord	68	26.5	74	31.1	76	40.8	70	38.6	69	42.0
threat	6	warning	65	33.8	77	14.3	76	27.6	75	44.0	68	29.4
threaten	6	give warning	69	30.4	76	26.3	64	26.6	77	40.3	52	36.5
three	F	one more than two	73	53.4	71	54.9	73	74.0*	72	84.7*	67	83.6*
thresher	6	machine	58	5.2	86	18.6	76	23.7	78	30.8	58	41.4
threshold	6	doorway	59	11.9	86	16.3	61	16.4	88	13.6	63	22.2
thrice	6	three times	45	37.8	67	34.3	79	29.1	63	30.2	53	41.5
thrift	6	saving	80	21.3	35	22.4	84	25.0	79	30.4	60	30.0
thriftless	6	wasteful	59	28.0	86	15.1	61	41.0	88	58.0	63	49.2
thrifty	6	careful in spending	79	24.1	76	30.3	91	27.5	64	26.6	69	31.9
thrill	6	exciting feeling	63	19.0	82	26.8	71	40.8	82	53.7	67	64.2
throat	F	front of the neck	58	48.3	86	47.7	76	60.5	78	71.8*	58	89.7*

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
chrob	6	beat	80	26.3	85	16.5	84	22.6	79	25.3	60	28.3		
throne	F	royal seat	60	16.7	83	21.7	75	25.3	79	38.0	60	40.0		
through	F	from end to end	73	26.0	71	31.0	73	41.1	72	50.0	67	61.2		
through	F	finished	58	29.3	86	38.4	76	44.7	78	44.9	58	48.3		
throughout	6	everywhere	49	34.7	69	20.3	65	21.5	79	27.8	49	49.0		
throw	F	toss	59	23.7	56	39.3	49	32.7	67	46.3	55	63.6		
thrush	6	songbird	56	25.0	77	27.3	79	31.6	76	15.8	47	31.9		
thrust	6	push	49	14.3	56	21.4	72	33.3	63	28.6	61	42.6		
thumb	F	finger	65	38.5	89	60.7	69	79.7*	71	88.7*	66	89.4*		
thunder	F	loud noise	48	27.1	70	38.6	59	39.0	66	62.1	57	64.9		
thunderbolt	6	lightning and thunder	69	30.4	93	48.4	70	52.9	80	62.5	70	71.4*		
thunderclap	6	crash of thunder	78	30.8	73	38.4	81	50.6	81	58.0	71	56.3		
thundercloud	4	cloud	68	25.0	80	41.3	65	66.2	65	64.6	71	73.2*		
thunderous	6	booming	45	28.9	67	37.3	79	54.4	63	66.7*	53	67.9*		
Thursday	F	day of the week	70	44.3	69	62.3	87	81.6*	67	91.0*	57	98.2*		
thus	6	therefore	75	18.7	88	44.3	77	40.3	74	39.2	72	56.9		
thy	F	your	66	33.3	98	28.6	66	51.5	60	50.0	84	65.5		
ticket	F	card	48	37.5	70	55.7	59	61.0	66	75.8*	57	75.4*		
tickle	F	touch lightly	65	36.9	89	33.7	69	34.8	71	56.3	66	45.5		
ticklish	6	sensitive	75	25.3	88	35.2	77	37.7	74	32.4	72	54.2		
tide	6	rise and fall of the ocean	49	14.3	69	14.5	65	21.5	79	41.8	49	55.1		
tidy	4	neat	71	18.3	98	20.4	79	25.3	65	46.2	64	56.3		
tie	F	fasten	75	30.7	88	29.5	77	29.9	74	44.6	72	34.7		
tiger	F	animal	61	47.5	74	60.8	85	89.4*	64	84.4*	78	91.0*		
tigress	6	female tiger	68	32.4	80	31.3	65	50.8	65	60.0	71	60.6		
tight	F	not loose	65	24.6	77	32.5	76	50.0	75	62.7	68	64.7		

-259-

WORD	DATE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%	N	%
tighten	6	fasten	45	31.1	67	37.3	79	25.3	63	42.9	53	43.4		
tile	6	baked clay	75	21.3	84	17.9	87	17.2	69	13.0	76	22.4		
till	F	up to the time of	84	33.3	80	35.0	66	40.9	89	53.9	62	54.8		
tilt	6	slant	45	24.4	67	34.3	79	32.9	63	44.4	53	41.5		
timber	4	wood	61	27.9	81	32.1	85	21.2	74	39.2	59	44.1		
time	F	days there have been or will be	70	25.7	95	23.2	72	34.7	77	58.4	61	73.8*		
timepiece	6	clock	63	38.1	82	45.1	71	50.7	82	62.2	67	76.1*		
timid	6	shy	50	26.0	93	22.6	63	28.6	76	39.5	69	31.9		
tin	F	metal	79	22.8	75	32.0	76	57.9	83	56.6	53	58.5		
tinsel	6	decoration	73	27.4	71	26.8	73	20.5	72	41.7	67	43.3		
tint	6	color	77	37.7	94	27.7	62	25.8	77	24.7	68	27.9		
tiny	F	small	75	32.0	84	41.7	87	50.6	69	76.8*	76	76.3*		
tip	F	end	69	21.7	76	22.4	64	23.4	77	33.8	52	30.8		
tipsy	6	unsteady	59	20.3	86	16.3	61	9.8	88	29.5	63	31.7		
tiptoe	F	walking on one's toes	45	26.7	68	23.5	79	40.5	57	54.4	51	49.0		
tire	F	wear out	79	26.6	76	23.7	91	23.1	64	28.1	69	29.0		
tired	F	weary	58	25.9	86	23.3	76	35.5	78	60.3	58	56.9		
tireless	6	requiring little rest	61	18.0	74	25.7	85	36.5	64	42.2	78	50.0		
firesome	6	dull	49	18.5	69	10.1	65	15.4	79	29.1	49	44.9		
tissue	6	thin paper	73	39.7	71	46.5	73	52.1	72	58.3	67	65.7		
tissue	6	mass of cells	59	30.5	70	20.0	76	27.6	64	40.6	56	48.2		
title	6	recognized right	76	21.1	91	25.3	75	30.7	85	49.4	57	68.4*		
title	F	name	73	42.5	71	36.6	73	58.9	72	73.6*	67	83.6*		
to	F	in the direction of	59	32.2	86	26.7	61	41.0	88	42.0	63	49.2		
toad	F	animal	58	20.7	86	44.2	76	47.4	78	59.0	58	62.1		
toadstool	F	plant	64	17.2	72	22.2	80	17.5	76	22.4	50	26.0		

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
toast	F	bread	73	43.8	71	46.5	73	61.6	72	80.6*	67	92.5*
toaster	4	thing that toasts	49	44.9	56	48.2	72	56.9	63	68.3*	61	70.5*
tobacco	F	leaves of certain plants	69	34.8	93	37.6	70	61.4	80	70.0*	70	84.3*
toboggan	6	sled	66	27.3	98	14.3	66	13.6	60	20.0	84	33.3
today	F	the present time	50	44.0	68	41.2	61	83.6*	60	80.0*	54	87.0*
toddle	6	walk	45	37.8	67	23.9	79	19.0	63	17.5	53	34.0
toddler	6	baby	48	29.2	70	21.4	59	23.7	66	30.3	57	21.1
toe	F	end part of the foot	58	46.6	86	60.5	76	73.7*	78	76.9*	58	87.9*
toil	6	work	58	29.3	86	27.9	76	13.2	78	24.4	58	31.0
toilet	F	bathroom	69	37.7	93	33.3	70	47.1	80	63.8	70	87.1*
token	6	sign	60	8.3	79	27.8	82	39.0	66	33.3	72	40.3
token	6	souvenir	64	32.8	72	25.0	75	36.0	81	40.7	65	46.2
tomahawk	4	ax	58	24.1	86	24.4	76	30.3	78	37.2	58	48.3
tomato	F	fruit	58	53.4	86	50.0	76	56.6	78	62.8	58	84.5*
tomb	6	grave	76	28.9	91	23.1	75	36.0	85	56.5	57	59.6
tombstone	4	stone that marks a grave	67	34.3	83	25.3	76	36.8	84	51.2	58	56.9
tomorrow	F	day after today	48	52.1	70	57.1	59	74.6*	66	92.4*	57	91.2*
ton	F	measure	45	13.3	67	22.4	79	32.9	63	65.1	53	71.7*
tone	F	pitch	60	15.0	70	10.0	79	17.7	82	23.2	38	23.7
tongue	F	piece of flesh in the mouth	78	33.3	73	45.2	81	58.0	81	63.0	71	71.8*
tonic	6	medicine	84	22.6	80	32.5	66	42.4	89	30.3	62	46.8
tonight	F	night of this day	45	33.3	67	38.8	79	54.4	63	63.5	53	75.5*
tonnage	6	weight	60	21.7	57	21.1	66	31.8	64	37.5	53	30.2
tonsil	6	tissue on the sides of the throat	69	24.6	91	37.4	83	49.4	69	53.6	61	50.8
too	F	also	49	16.3	69	36.2	65	53.8	79	63.3	49	67.3*
toothache	6	pain in the tooth	73	39.7	71	53.5	73	56.2	72	80.6*	67	86.6*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
toothpick	F	pointed piece of wood	61	21.3	81	28.4	77	40.3	61	45.9	70	75.7*
top	F	cover	75	24.0	84	27.4	87	40.2	69	56.5	76	56.6
topic	6	subject	69	26.1	76	25.0	64	35.9	77	51.9	52	53.8
topmost	6	highest	70	25.7	88	21.6	62	35.5	79	44.3	66	59.1
topple	6	tumble	60	51.7	83	34.9	75	40.0	79	54.4	60	31.7
torch	6	light	65	18.5	89	36.0	69	26.1	71	36.6	66	24.2
torment	6	cause great pain	73	15.1	71	16.9	73	13.7	72	19.4	67	41.8
tormentor	6	annoyer	60	18.3	83	25.3	75	17.3	79	35.4	60	28.3
tornado	6	violent wind	70	22.9	69	34.8	87	58.6	67	70.1*	57	77.2*
torpedo	6	explosive	75	26.7	88	30.7	77	35.1	74	27.0	72	44.4
torrent	6	stream of water	75	29.3	88	28.4	77	35.1	74	31.1	72	26.4
tortoise	6	turtle	56	25.0	77	27.3	79	27.8	76	34.2	47	55.3
torture	6	cruelty	75	20.0	88	29.5	77	27.3	74	33.8	72	34.7
ross	F	throw	45	24.4	67	22.4	79	34.2	63	42.9	53	43.4
tot	6	child	67	35.8	83	21.7	76	32.9	84	27.4	58	20.7
total	4	whole	65	44.6	77	33.8	76	44.7	75	61.3	68	61.8
totter	6	walk	59	23.7	86	26.7	61	34.4	88	40.9	63	41.3
touch	F	feel	75	36.0	88	36.4	77	55.8	74	75.7*	72	70.8*
tough	6	strong	70	24.3	69	29.0	87	43.7	67	58.2	57	59.6
tour	4	travel	67	28.4	83	28.9	76	30.3	84	40.5	58	48.3
tourist	6	person traveling for pleasure	67	23.9	70	27.1	73	49.3	72	56.9	73	64.4
tournament	6	contest	75	22.7	88	38.6	77	41.6	74	47.3	72	50.0
tow	F	pull	65	4.6	77	13.0	76	25.0	75	32.0	68	27.9
toward	F	in the direction of	63	23.0	82	29.3	71	28.2	82	47.6	67	56.7
towards	F	in the direction of	70	20.0	88	23.9	62	41.9	79	36.7	66	51.5
towel	F	piece of cloth	59	28.0	86	41.9	61	72.1*	88	80.7*	63	82.5*
tower	6	rise high up	41	36.6	57	38.6	70	28.6	71	50.7	51	60.8

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
tower	F	column	67	20.9	70	18.6	73	27.4	72	25.0	73	21.9
town	F	place with many people living in it	84	45.2	80	53.8	66	45.5	89	59.6	62	62.9
township	6	part of a county	56	25.0	61	32.8	60	43.3	74	59.5	49	69.4
toy	F	plaything	59	47.5	86	61.6	61	83.6*	88	87.5*	63	87.3*
trace	F	draw	65	32.3	89	25.8	69	27.5	71	35.2	66	24.2
track	F	rails	70	25.7	88	30.7	62	54.8	79	68.4*	66	65.2
trackless	6	without paths	60	25.0	83	16.9	75	32.0	79	54.4	60	50.0
tract	6	stretch of land	41	19.5	57	17.5	70	15.7	71	26.8	51	29.4
tractor	4	engine for pulling	60	18.3	83	39.8	75	52.0	79	74.7*	60	70.0*
trade	F	buy and sell	60	18.3	83	24.1	75	34.7	79	65.8	60	68.3*
trademark	6	brand	71	23.9	98	20.4	79	17.7	65	23.1	64	28.1
trader	6	merchant	51	33.3	63	49.2	66	39.4	53	54.7	53	64.2
tragedy	6	terrible happening	59	27.1	70	41.4	76	38.2	64	54.7	56	50.0
tragic	6	sad	64	31.3	72	20.8	80	25.0	76	30.3	50	32.0
trail	4	path	68	26.5	80	26.3	65	47.7	65	50.8	71	63.4
trail	6	follow behind	59	40.7	70	25.7	76	32.9	64	45.3	56	50.0
trailer	6	wagon pulled by automobile	64	35.9	72	43.1	80	61.3	76	71.1*	50	84.0*
train	F	railroad cars	67	38.8	70	55.7	73	72.6*	72	87.5*	73	93.2*
trainer	4	teacher	68	42.6	80	35.0	65	44.6	65	44.6	71	63.4
training	4	education	70	25.7	69	29.0	87	37.9	67	46.3	57	63.2
traitor	6	person who betrays his country	68	22.1	80	25.0	64	35.9	68	60.3	71	62.0
tramp	F	walk	41	19.5	57	21.1	70	11.4	71	26.8	51	29.4
trample	4	crush	45	20.0	67	20.9	79	29.1	63	36.5	53	32.1
trance	6	state between sleeping and waking	49	16.3	62	24.2	57	21.1	67	31.3	57	22.8
transfer	6	hand over	70	41.4	69	23.2	87	26.4	67	38.8	57	49.1
transform	6	change	59	20.3	56	32.1	49	32.7	67	38.8	55	49.1

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
translation	4	change into another language	63	36.5	82	37.8	71	45.1	82	36.6	67	52.2
transmission	4	part of an automobile	78	23.1	79	25.3	69	36.2	66	45.5	68	54.4
transmit	6	send	78	20.5	82	12.2	82	18.3	85	41.2	61	42.6
transmitter	6	radio	68	32.4	80	41.3	69	34.8	70	38.6	59	37.3
transparent	6	easily seen through	76	13.2	87	32.2	73	34.2	78	35.9	63	38.1
transplant	4	remove from one place to another	56	25.0	61	36.1	60	38.3	74	51.4	49	55.1
transport	4	carry	70	20.0	88	19.3	62	30.6	79	30.4	66	45.5
trapeze	6	bar hung by ropes	65	15.4	71	23.9	75	32.0	66	31.8	60	35.0
trapper	4	hunter	67	31.3	70	27.1	73	39.7	72	52.8	73	41.1
trash	4	rubbish	70	31.4	69	33.3	87	62.1	67	70.1*	57	61.4
travel	4	journey	78	28.2	82	20.7	82	40.2	85	55.3	61	62.3
traveler	4	voyager	45	35.6	67	52.2	79	57.0	63	68.3*	53	69.8*
tray	F	flat holder	75	42.7	88	39.8	77	50.6	74	52.7	72	61.1
treacherous	6	risky	78	16.7	79	25.3	69	26.1	66	33.3	68	57.4
treachery	6	breaking of faith	63	19.0	82	19.5	71	22.5	82	23.2	67	31.3
tread	6	walk	75	29.3	88	20.5	77	18.2	74	14.9	72	18.1
treasure	F	valuable things	60	30.0	79	34.2	82	54.9	66	62.1	72	80.6*
treasurer	6	person in charge of money	52	28.8	75	26.7	85	34.1	64	39.1	52	65.4
treasury	4	place where money is kept	75	26.7	88	26.1	77	42.9	74	54.1	72	52.8
treat	F	act toward	80	27.5	85	18.8	84	27.4	79	32.9	60	41.7
treatment	4	care	76	18.4	87	20.7	73	27.4	78	33.3	63	46.0
treaty	6	agreement	45	15.6	67	22.4	79	29.1	63	38.1	53	56.6
tree	F	plant	49	34.7	62	58.1	57	73.7*	67	76.1*	57	93.0*
tremble	6	shake	65	20.0	91	34.1	69	26.1	68	29.4	64	35.9
tremendous	6	huge	76	15.6	91	19.8	75	24.0	85	36.5	57	47.4
trench	6	ditch	60	23.3	57	26.3	66	34.8	64	26.6	53	39.6

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
trespass	6	sin	49	22.4	56	16.1	72	26.4	63	28.6	61	39.3
trespass	4	go beyond the limits of	67	28.4	83	31.3	76	38.2	84	46.4	58	48.3
triangle	4	a figure	58	22.4	86	24.4	76	25.0	78	53.8	58	65.5
tribal	6	of a tribe	67	25.4	83	19.3	76	25.0	84	29.8	58	27.6
tribe	6	group	63	20.6	82	25.6	71	36.6	82	42.7	67	61.2
tribesman	6	member of a tribe	67	22.4	70	20.0	73	39.7	72	37.5	73	52.1
trick	F	clever act	64	21.9	72	27.8	80	36.3	76	57.9	50	62.0
trickle	6	flow	70	21.4	63	14.3	76	19.7	70	11.4	58	19.0
tricky	6	sly	52	21.2	75	33.3	85	38.8	64	26.6	52	30.8
trifle	6	small amount	65	13.8	71	36.6	75	44.0	66	51.5	60	51.7
trigger	6	lever	64	21.9	72	19.4	80	13.8	76	25.0	50	22.0
trim	F	cut	63	28.6	82	25.6	71	23.9	82	35.4	67	58.2
trinket	6	bit of jewelry	75	40.0	88	29.5	77	27.3	74	32.4	72	29.2
trio	6	group of three	64	25.0	72	26.4	80	20.0	76	32.9	50	34.0
trip	F	journey	68	20.6	80	46.3	69	55.1	70	64.3	59	76.3*
triple	6	having three parts	64	25.0	72	29.2	80	31.3	76	50.0	50	56.0
triplets	6	group of three	77	26.0	94	23.4	62	35.5	77	45.5	68	45.6
triumph	6	victory	79	31.6	75	24.0	76	27.6	83	28.9	53	39.6
triumphal	6	celebrating a victory	59	32.2	86	22.1	61	27.9	88	38.6	63	38.1
triumphant	6	successful	70	30.0	69	37.7	87	42.5	67	43.3	57	52.6
troop	6	group	67	35.8	70	51.4	73	61.6	72	76.4*	73	71.2*
trooper	6	policeman	68	25.0	80	36.3	65	33.8	65	35.4	71	33.8
trophy	6	prize	49	34.7	56	26.8	72	44.4	63	42.9	61	65.6
tropical	6	hot	63	33.3	82	24.4	71	22.5	82	13.4	67	26.9
tropics	6	regions near the equator	59	33.9	86	14.0	61	37.7	88	46.6	63	58.7
trot	6	run	64	29.7	72	34.7	80	25.0	76	22.4	50	30.0
trouble	F	worry	64	20.3	72	33.3	80	60.0	76	73.7*	50	80.0*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			E	%	N	%	N	%	N	%	N	%
trough	6	container	65	12.3	77	23.4	76	43.4	75	48.0	68	51.5
trousers	6	pants	65	24.6	71	28.2	75	21.3	66	28.8	60	43.3
trout	4	fish	65	36.9	77	23.4	76	28.9	75	48.0	68	36.8
trowel	6	tool	60	23.3	70	32.9	79	24.1	82	15.9	38	34.2
truck	F	strongly built automobile	70	28.6	80	37.5	58	63.8	74	74.3*	67	76.1*
trudge	6	walk	65	24.6	89	23.6	69	11.6	71	15.5	66	18.2
true	F	real	57	22.8	64	54.7	63	66.7*	76	67.1*	53	77.4*
truly	F	really	77	27.3	94	40.4	62	38.7	77	49.4	68	75.0*
trump	6	victory	78	21.8	79	27.8	69	34.8	66	30.3	68	33.8
trumpet	4	horn	49	20.4	56	25.0	72	33.3	63	28.6	61	31.1
trumpeter	6	musician	49	22.4	62	29.0	57	19.3	67	38.8	57	40.4
trunk	F	box	80	35.0	85	21.2	84	29.8	79	35.4	60	51.7
trust	F	have faith in	44	31.8	76	30.3	88	36.4	59	45.8	55	54.5
trustworthy	6	dependable	70	21.4	88	19.3	62	21.0	79	31.6	66	30.3
trusty	6	reliable	56	32.1	77	20.6	79	41.8	76	46.1	47	59.6
truth	F	fact	65	29.2	77	26.0	76	43.4	75	54.7	68	58.8
truthful	6	honest	60	18.3	83	26.5	75	45.3	79	65.8	60	66.7*
try	F	test	65	30.8	77	37.7	76	53.9	75	62.7	68	61.8
tub	F	bucket	64	25.0	72	33.3	80	58.8	76	63.2	50	64.0
tube	4	pipe	78	39.7	73	34.2	81	45.7	81	49.4	71	59.2
tuberculosis	6	disease	75	17.3	88	14.8	77	27.3	74	28.4	72	47.2
tuck	6	press together	66	27.3	73	27.4	66	33.3	86	29.1	71	32.4
tuck	6	sew a fold	65	24.6	71	23.9	75	17.3	66	22.7	60	28.3
Tuesday	F	day of the week	59	50.8	56	75.0*	49	93.9*	67	83.6*	55	90.9*
tug	F	pull	78	42.3	73	35.6	81	39.5	81	28.4	71	35.2
tulip	F	flower	78	26.9	73	38.4	81	49.4	81	58.0	71	62.0

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
tumble	F	roll	60	31.7	83	42.2	75	40.0	79	59.5	60	48.3
tumbler	6	acrobat	64	25.0	72	20.8	80	25.0	76	26.3	50	34.0
tuna	6	fish	50	26.0	68	35.3	61	42.6	60	61.7	54	83.3*
tune	F	piece of music	78	15.4	73	28.8	81	32.1	81	39.5	71	50.7
tuneful	6	musical	84	33.3	80	18.8	66	24.2	89	44.9	62	43.5
turban	6	headdress	59	22.0	56	14.3	49	28.6	67	17.9	55	21.8
turkey	F	bird	59	39.0	56	58.9	49	73.5*	67	79.1*	55	78.2*
turn	F	move round	76	32.9	87	48.3	73	56.2	78	78.2*	63	79.4*
turnip	6	plant	64	43.8	72	33.3	80	43.8	76	43.4	50	52.0
turnpike	6	road	48	22.9	70	14.3	59	27.1	66	37.9	57	26.3
turpentine	6	oil	59	23.7	56	30.4	49	30.6	67	17.9	55	47.3
turquoise	6	blue	59	30.5	70	18.6	76	15.8	64	32.8	56	46.4
turtle	F	animal	70	45.7	88	58.0	62	75.8*	79	84.8*	66	87.9*
tusk	6	tooth	48	29.2	70	37.1	59	40.7	66	24.2	57	22.8
tussle	6	struggle	48	22.9	70	40.0	59	42.4	66	59.1	57	52.6
tweed	6	cloth	71	18.3	98	13.3	79	17.7	65	12.3	64	17.2
twelve	F	one more than eleven	48	41.7	70	61.4	59	66.1	66	86.4*	57	91.2*
twenty	F	two times ten	49	40.8	69	71.0*	65	75.4*	79	83.5*	49	85.7*
twice	F	two times	70	28.6	88	26.1	62	51.6	79	59.5	66	78.8*
twig	F	branch	56	19.6	77	27.3	79	35.4	76	39.5	47	51.1
twilight	6	dusk	58	19.0	70	18.6	58	22.4	57	22.8	56	39.3
twin	F	one of two born at the same time	70	35.7	88	56.8	62	75.8*	79	79.7*	66	86.4*
twine	6	thread	65	41.5	77	28.6	76	31.6	75	26.7	68	27.9
twine	6	weave	66	25.8	96	26.5	66	25.8	60	40.0	84	29.8
twinkle	6	shine	65	23.1	91	31.9	69	37.7	68	61.8	64	62.5
twirl	6	spin	56	23.2	77	23.4	79	38.0	76	56.6	47	74.5*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
twitch	6	jerk	60	30.0	57	24.6	66	27.3	64	21.9	53	39.6
twitter	6	chirping	54	14.8	86	14.0	73	16.4	77	23.4	63	41.3
two	F	one more than one	60	45.0	83	67.5*	75	84.0*	79	93.7*	60	88.3*
type	6	kind	70	28.6	80	28.8	58	22.4	74	21.6	67	38.8
type	6	write with a typewriter	58	20.7	70	31.4	58	63.8	57	71.9*	56	82.1*
typewriter	6	machine for making letters	50	34.0	93	47.3	63	61.9	76	77.6*	69	76.8*
typhoid	6	disease	60	23.3	57	24.6	66	31.8	64	31.3	53	39.6
typhoon	6	storm	68	32.4	80	18.8	69	24.6	70	18.6	59	22.0
typist	6	person operating a typewriter	77	33.8	94	29.8	62	54.8	77	58.4	68	73.5*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
ugly	F	unpleasant to look at	66	50.0	73	34.2	69	46.4	70	62.9*	66	63.6
umbrella	F	folding frame covered with cloth	66	25.8	73	37.0	69	58.0	70	77.1*	66	86.4*
unable	6	helpless	50	30.0	93	39.8	63	44.4	76	60.5	69	52.2
unarm	6	deprive of weapons	84	15.5	80	26.3	66	30.3	89	38.2	62	50.0
unashamed	6	shameless	63	28.6	82	23.2	71	52.1	82	58.5	67	80.6*
unattractive	6	ugly	65	24.6	61	21.3	90	40.0	67	47.8	73	54.8
unaware	6	unconscious	75	28.0	88	37.5	77	41.6	74	36.5	72	37.5
unbecoming	6	not appropriate	67	28.4	83	36.1	76	50.0	84	61.9	58	75.9*
unbelief	6	doubt	65	20.0	61	23.0	90	28.9	67	44.8	73	53.4
unbelieving	6	suspicious	68	32.4	74	28.4	76	43.4	70	55.7	69	47.8
unborn	4	not yet born	65	29.2	61	41.0	90	55.6	67	58.2	73	79.5*
unbutton	4	open	65	26.2	61	32.8	90	41.1	67	49.3	73	60.3
uncertain	4	open to question	45	28.9	68	25.0	79	21.5	57	38.6	51	27.5
uncertainty	6	doubt	63	22.2	82	15.9	71	29.6	82	35.4	67	49.3
unchangeable	6	permanent	41	24.4	57	28.1	70	28.6	71	38.0	51	49.0
unchanged	6	the same	65	15.4	61	21.3	90	37.8	67	49.3	73	54.8
unchecked	6	uncontrolled	61	31.1	74	25.7	85	40.0	64	53.1	78	52.6
unclasp	6	unfasten	61	27.9	74	20.3	85	31.8	64	42.2	78	42.3
uncle	F	brother of one's father or mother	59	50.8	86	46.5	61	73.8*	88	79.5*	63	85.7*
unclean	4	dirty	61	23.0	74	36.5	85	58.8	64	78.1*	78	83.3*
uncomfortable	6	nervous	77	16.9	94	35.1	62	53.2	77	42.9	68	52.9
uncommon	6	rare	61	24.6	74	24.3	85	29.4	64	40.6	78	57.7
unconcerned	6	not interested	77	29.9	94	31.9	62	50.0	77	49.4	68	52.9
unconscious	6	not aware	60	28.3	67	23.9	79	26.6	81	25.9	62	41.9
uncover	6	open	65	27.7	91	34.1	69	42.0	68	63.2	64	65.6
uncultivated	6	wild	61	26.2	74	24.3	85	27.1	64	32.8	78	39.7

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
under	F	below	61	31.1	74	43.2	85	55.3	64	75.0*	78	82.1*
underbrush	6	small trees	60	23.3	67	26.9	79	30.4	81	33.3	62	37.1
undercooked	4	not done	78	20.5	82	20.7	82	17.1	85	36.5	61	39.3
undercover	6	secret	60	18.3	67	19.4	79	36.7	81	32.1	62	27.4
underestimate	6	rate too low	66	13.6	73	19.2	69	18.8	70	35.7	66	27.3
underground	6	beneath the ground	64	26.6	72	54.2	80	65.0	76	80.3*	50	82.0*
underground	6	secret	64	18.8	72	27.8	75	20.0	81	21.0	65	23.1
undergrowth	6	small trees	64	26.6	72	40.3	75	38.7	81	42.0	65	55.4
underline	6	mark	58	19.0	70	38.6	58	44.8	57	59.6	56	71.4*
underneath	6	below	60	20.0	83	18.1	75	24.0	79	48.1	60	45.0
undersell	6	sell cheaply	77	29.9	94	25.5	62	41.9	77	55.8	68	66.2
undershirt	6	shirt worn next to the skin	49	32.7	56	37.5	72	34.7	63	47.6	61	50.8
underside	6	bottom	64	18.8	72	23.6	75	38.7	81	50.6	65	55.4
understand	F	get the meaning of	49	26.5	56	19.6	72	38.9	63	61.9	61	72.1*
undestirable	6	distasteful	71	26.8	98	26.5	79	35.4	65	38.5	64	50.0
undiscovered	6	unknown	84	22.6	80	16.3	66	24.2	89	39.3	62	41.9
undivided	6	whole	77	19.5	94	14.9	62	27.4	77	44.2	68	50.0
undo	6	untie	77	26.0	94	30.9	62	33.9	77	28.6	68	36.8
undone	6	not finished	73	32.9	71	39.4	73	47.9	72	69.4*	67	82.1*
undress	F	take the clothes off	77	31.2	94	40.4	62	56.5	77	77.9*	68	69.1*
uneared	6	undeserved	77	24.7	94	30.9	62	33.9	77	49.4	68	55.9
unearth	6	dig up	60	26.7	67	32.8	79	43.0	81	37.0	62	45.2
uneasily	6	restlessly	68	27.9	74	33.8	76	27.6	70	41.4	69	43.5
uneducated	6	without learning	48	20.8	70	25.7	59	42.4	66	54.5	57	54.4
unemployed	6	having no work	65	26.2	71	33.8	75	37.3	66	54.5	60	70.0*
unending	6	endless	65	12.3	71	23.9	75	33.3	66	45.5	60	51.7

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
unequal	6	not the same	65	32.3	71	29.6	75	44.0	66	54.5	60	66.7*
uneven	6	rough	65	23.1	71	22.5	75	32.0	66	31.8	60	31.7
unexpected	4	sudden	67	17.9	83	36.1	76	39.5	84	50.0	58	48.3
unexplored	4	unknown	66	34.8	98	28.6	66	43.9	60	53.3	84	61.9
unfailing	6	never failing	67	32.8	83	34.9	76	46.1	84	65.5*	58	67.2*
unfair	F	not just	45	20.0	68	20.6	79	41.8	57	66.7*	51	66.6*
unfamiliar	6	not known	48	25.0	70	32.9	79	40.7	66	40.9	57	52.6
unfasten	4	untie	56	17.9	77	26.0	79	30.4	76	32.9	47	51.1
unfelt	6	numb	79	35.4	76	31.6	91	30.8	64	29.7	69	33.3
unfit	6	not good enough	58	29.3	70	34.3	58	43.1	57	54.4	56	71.4*
unfold	F	open out	57	29.8	64	25.0	83	36.5	76	55.3	53	71.7*
unforgettable	6	notable	69	29.0	91	25.3	70	30.1	69	30.4	61	44.3
unfortunate	6	not lucky	64	18.8	76	28.9	82	34.3	78	46.2	60	56.7
unfriendly	F	not friendly	65	29.2	91	47.3	69	60.9	68	76.5*	64	82.8*
ungovernable	6	uncontrollable	78	33.3	82	31.7	76	32.9	85	50.6	61	57.4
ungracious	6	rude	65	29.2	77	35.1	84	42.9	75	58.7	68	50.0
ungrateful	6	not thankful	80	28.8	85	37.6	76	38.2	79	45.6	60	71.7*
unguarded	6	not protected	66	27.3	73	31.5	66	33.3	86	54.7	71	67.6*
unhappily	6	unfortunately	70	20.0	88	29.5	62	24.2	79	31.6	66	30.3
unhappiness	4	sadness	70	22.9	69	17.4	87	52.9	67	67.2*	57	75.4*
unhappy	F	sad	73	46.6	71	69.0*	73	74.0*	72	80.6*	67	92.5*
unharmed	6	unhurt	66	21.2	73	39.7	66	31.8	86	57.0	71	67.6*
unhealthful	6	bad for the health	73	30.1	71	29.6	73	43.8	72	61.1	67	80.6*
unhealthy	4	not well	66	25.8	73	39.7	66	50.0	86	65.1	71	78.9*
unheard	4	not listened to	73	26.0	71	42.3	73	43.8	72	58.3	67	80.6*

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
unheeded	6	announced	70	22.9	60	12.5	58	24.1	74	32.4	67	31.3
unhurt	F	safe	70	30.0	20	36.3	58	46.6	74	73.0*	67	80.6*
uniform	F	clothes	73	37.0	71	36.6	73	53.4	72	48.6	67	73.1*
unimportant	4	lesser	71	21.1	90	20.6	79	41.8	65	40.0	64	62.5
uninjured	6	unharmd	69	27.5	91	24.2	83	39.8	69	56.5	61	62.3
uninterrupted	6	continual	69	33.3	91	38.5	83	49.4	69	50.7	61	41.0
uninvited	4	unwelcome	69	30.4	91	26.4	83	51.8	69	55.1	61	57.4
union	6	joining	69	21.7	91	28.6	83	43.4	69	59.4	61	50.8
unit	6	a single thing	69	10.1	91	25.3	83	42.2	69	44.9	61	49.2
unite	6	join	69	29.0	91	24.2	83	15.7	69	29.0	61	44.3
universe	6	all things	63	19.0	82	15.9	71	22.5	82	26.8	67	46.3
university	6	institute of learning	65	33.8	61	26.2	90	44.4	67	59.7	73	61.6
unkind	F	cruel	65	32.3	77	49.4	76	56.6	75	66.7*	68	72.1*
unkindness	6	cruelty	73	13.7	71	26.8	73	24.7	72	48.6	67	64.2
unknown	F	strange	69	17.4	91	30.8	83	45.8	69	46.4	61	60.7
unlace	6	undo	69	33.3	91	31.9	83	30.1	69	31.9	61	31.1
unlawful	6	against the law	51	11.8	63	20.6	66	47.0	53	50.9	53	75.5*
unlearned	6	not learned	66	25.8	73	42.5	66	56.1	86	72.1*	71	80.3*
unless	F	if not	66	19.7	73	19.2	66	30.3	86	43.0	71	50.7
unlike	6	different	66	18.2	73	43.8	66	37.9	86	58.1	71	66.2
unlikely	6	not probable	78	19.7	73	35.6	81	40.7	81	49.4	71	69.0*
unload	6	remove	58	10.3	86	17.4	76	38.2	78	38.5	58	51.7
unlock	4	open	77	42.9	94	50.0	62	51.6	77	76.6*	68	82.4*
unloose	6	set free	60	21.7	67	22.4	79	29.1	81	29.6	62	48.4
unlovely	6	without beauty	69	30.4	76	30.3	64	54.7	77	63.6	52	73.1*
unlucky	4	not lucky	60	28.3	67	40.3	79	48.1	81	67.9*	62	75.8*
unmanly	6	weak	69	23.2	91	23.1	83	22.9	69	27.5	61	47.5

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
unmarried	4	single	66	10.6	73	19.2	66	28.8	86	39.5	71	60.6
unmask	6	expose	73	23.3	71	25.4	73	21.9	72	36.1	67	41.8
unmerciful	6	cruel	77	23.4	74	27.7	62	25.8	77	36.4	68	52.9
unmoved	6	firm	58	19.0	86	20.9	76	19.7	78	26.9	58	34.5
unnamed	4	without a name	73	26.0	71	40.8	73	47.9	66	75.0*	67	82.1*
unnatural	4	not normal	60	33.3	79	30.4	82	37.8	79	54.4	72	62.5
unnoticed	6	not observed	60	28.7	67	26.5	75	30.7	81	59.3	60	55.0
unopened	6	closed	60	31.7	76	35.8	79	50.6	64	48.4	62	79.0*
unofficial	6	not official	79	24.1	83	26.5	91	41.8	79	64.3	69	56.5
unorganized	6	out of order	60	21.7	76	36.2	75	25.3	64	44.9	60	41.7
unpack	6	take out	77	28.6	83	28.9	62	37.1	77	62.0	68	66.7*
unpaid	6	due	60	26.7	57	40.4	75	38.7	79	62.0	60	78.4*
unpleasant	F	not pleasant	41	22.0	83	22.9	75	57.1	71	53.2	51	55.0
unpopular	6	not liked	60	11.7	83	22.0	75	28.0	79	49.4	60	58.3
unprepared	4	not ready	60	23.3	83	19.3	75	34.7	79	62.0	66	58.3
unprotected	6	helpless	60	31.7	88	34.8	75	38.7	79	12.7	47	22.7
unqualified	6	unfit	70	17.1	88	14.8	62	11.3	76	27.6	66	36.6*
unquestionable	6	certain	56	21.4	77	11.7	79	26.6	64	53.1	52	84.6
unreal	6	imaginary	52	28.8	75	33.3	85	56.5	79	25.3	49	51.0
unreasonable	6	foolish	49	28.6	69	27.5	65	18.5	65	55.4	71	47.7
unreliable	6	not to be depended upon	68	30.9	80	25.0	82	27.7	66	40.9	72	41.7
unrest	6	lack of quiet	60	16.7	79	29.1	61	25.6	60	36.7	54	50.0
unripe	6	immature	50	20.0	68	20.6	75	22.7	81	33.3	65	33.8
unroll	6	open	64	23.4	72	30.6	70	34.3	80	48.8	70	72.9*
unsatisfactory	6	not good enough	69	20.3	93	20.4	75	33.3	76	52.6	69	46.4
unsatisfied	4	unhappy	50	22.0	93	31.2	63	33.8	68	48.5	71	33.8
unscrew	6	loosen	68	26.5	80	28.8	64	43.8				

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
unseen	6	not visible	60	15.0	33	19.3	75	20.0	79	50.6	60	55.0
unselfish	6	caring for others	60	18.3	83	20.5	75	40.0	79	45.6	60	51.7
unsettled	6	homeless	59	27.1	86	26.7	61	32.8	88	40.9	63	54.0
unsettled	6	uncertain	70	34.3	95	30.5	72	25.0	77	36.4	61	45.9
unskilled	6	not trained	58	10.3	86	24.4	76	25.0	78	41.0	58	51.7
unspotted	6	perfect	73	11.0	71	32.4	73	24.7	72	37.5	67	41.8
unsteady	6	shaky	71	26.8	87	25.3	72	16.7	80	31.3	56	21.4
unsuccessful	6	without success	73	26.0	71	31.0	73	42.5	72	62.5	67	79.1*
unsuitable	6	unfit	67	25.4	70	28.6	73	27.4	72	50.0	73	46.6
unsuspected	6	not thought of	65	20.0	71	23.9	75	36.0	66	43.9	60	63.3
unsuspecting	6	unaware	73	24.7	71	19.7	73	43.8	72	47.2	67	64.2
untaught	6	unlearned	60	23.3	67	43.3	79	59.5	81	63.0	62	75.8*
untidy	6	not neat	60	18.3	83	15.7	75	37.3	79	51.9	60	51.7
untie	4	loosen	60	23.3	79	24.1	82	41.5	66	53.0	72	61.1
until	P	up to the time of	66	30.3	73	41.1	69	44.9	70	65.7	66	71.2*
untiring	6	tireless	45	11.1	67	20.9	79	34.2	63	44.4	53	58.5
unto	6	to	68	22.1	74	37.8	76	52.6	70	60.0	69	63.8
untouched	6	new	60	36.7	83	27.7	75	18.7	79	34.2	60	30.0
untrained	4	not trained	44	31.8	76	25.0	88	52.3	59	47.5	55	67.3*
untroubled	6	calm	58	27.6	70	22.9	58	37.9	57	52.6	56	62.5
untrue	6	false	61	18.0	81	30.9	77	48.1	61	65.6	70	62.9*
unused	6	new	64	21.9	76	21.1	70	21.4	78	32.1	60	51.7
unusual	6	rare	68	26.5	74	24.3	76	38.2	70	32.9	69	29.0
unwelcome	4	not wanted	68	30.9	80	32.5	69	52.2	70	58.6	59	71.2*
unwilling	P	not willing	68	22.1	80	23.8	64	51.6	68	70.6*	71	77.5*
unwise	6	foolish	75	24.0	84	26.2	87	37.9	69	62.3	76	63.2

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
unworthy	6	not deserving	66	30.3	98	25.5	66	48.5	60	38.3	84	61.9
unwrap	6	open	56	35.7	61	29.5	60	25.0	74	56.8	49	61.2
up	F	to a higher place	75	14.7	84	28.6	87	47.1	69	68.1*	76	73.7*
uphill	6	upward	80	38.8	75	40.0	76	46.1	66	60.6	62	50.0
upholster	6	provide with covering	48	31.3	70	30.0	59	28.8	66	53.0	57	63.2
upholstery	6	coverings	58	22.4	70	25.7	58	15.5	57	17.5	56	35.7
upland	4	high land	70	27.1	80	42.5	58	48.3	74	60.8	67	77.6*
upon	F	on	61	26.2	81	27.2	77	36.4	61	54.1	70	77.1*
upper	F	higher	76	25.7	95	27.4	72	48.6	77	68.8*	61	77.0*
uppermost	6	highest	78	20.5	79	35.4	69	43.5	66	53.0	68	67.6*
upright	6	standing straight	57	24.6	64	43.8	63	57.1	76	57.9	53	62.3
uprising	6	revolt	54	27.8	36	19.8	73	30.1	77	27.3	63	31.7
uproar	6	loud noise	73	21.9	71	33.8	73	45.2	72	52.8	67	67.2*
uproot	6	remove	59	22.0	70	27.1	76	34.2	64	29.7	56	42.9
upset	F	tip over	66	28.6	73	34.2	66	36.4	86	41.9	71	33.8
upside	F	top	66	37.9	98	35.7	66	66.7*	60	68.3*	84	68.1*
upstairs	F	on an upper floor	70	30.0	63	41.3	76	65.8	70	67.1*	58	91.4*
upstream	6	against the current	66	30.3	98	20.4	66	25.8	60	30.0	84	46.4
upturn	6	lift	65	36.9	61	24.6	90	38.9	67	38.8	73	43.8
upward	F	toward a higher place	65	36.9	61	27.9	90	50.0	67	55.2	73	69.9*
urge	6	push	49	26.5	69	29.0	65	18.5	79	17.7	49	24.5
urgent	6	demanding immediate action	65	32.3	61	26.2	90	33.3	67	47.8	73	46.6
urine	6	fluid	66	25.8	98	23.5	66	28.8	60	31.7	84	48.8
us	F	we	74	60.8	79	72.2*	77	71.4*	80	85.0*	57	89.5*
usable	6	can be used	66	12.1	98	23.5	66	30.3	60	33.3	84	61.9
use	F	put into service	50	26.0	93	35.5	63	60.3	76	71.1*	69	60.9

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
used	F	not new	66	31.8	73	19.2	69	29.0	70	45.7	66	59.1
useful	F	helpful	61	49.2	81	50.6	85	56.5	74	71.6*	59	54.2
useless	6	worthless	64	14.1	76	25.0	70	50.0	78	61.5	60	73.3*
usher	4	person who shows people to their seats	70	25.7	80	25.0	58	44.8	74	43.2	67	50.7
utensil	6	tool	66	30.3	73	24.7	69	24.6	70	21.4	66	34.8
utmost	6	greatest	70	18.6	95	20.0	72	23.6	77	27.3	61	29.5
utter	6	speak	78	23.1	82	26.8	82	20.7	85	25.9	61	24.6

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
vacancy	6	empty space	45	22.2	68	19.1	79	41.8	57	40.4	51	51.0
vacant	4	empty	69	15.9	91	17.6	83	36.1	69	37.7	61	47.5
vacate	6	leave empty	65	26.2	77	23.4	76	25.0	75	38.7	68	36.8
vacation	6	freedom from business duties	61	29.5	81	29.6	85	34.1	74	51.4	59	64.4
vaccination	6	shot	61	23.0	81	22.2	85	14.1	74	28.4	59	40.7
vaccine	6	germs used to protect a person	77	26.0	94	18.1	62	27.4	77	35.1	68	52.9
valentine	F	greeting card	80	27.5	75	52.0	76	63.2	66	77.3	62	74.2
valuable	F	worth money	77	23.4	94	27.7	62	29.0	77	40.3	68	60.3
value	F	worth	74	21.6	79	12.7	77	33.8	80	51.3	57	57.9
van	6	truck	60	23.3	67	32.8	79	29.1	81	37.0	62	48.4
vanish	4	go away	65	29.2	77	18.2	76	28.9	75	25.3	68	35.3
variety	6	different kinds	58	17.2	70	20.0	58	20.7	57	19.3	56	46.2
various	6	different	45	22.2	67	23.9	79	22.8	63	27.0	53	32.1
varnish	4	paint	60	23.3	70	30.0	79	24.1	82	41.5	38	28.9
vase	F	holder	64	23.4	72	37.5	75	37.3	81	46.1	65	60.0
vast	6	large	79	26.6	75	28.0	76	18.4	83	26.5	53	41.5
vegetable	F	plants used for food	71	52.1	87	51.7	72	72.2	80	88.8	56	94.6
vegetation	6	plant life	61	26.2	74	39.2	85	45.9	64	59.4	78	57.7
vehicle	6	means of transport	71	25.4	87	29.9	72	26.4	80	35.0	56	48.2
veil	6	material to hide the face	59	23.7	86	25.6	61	18.0	83	40.9	63	41.3
vein	6	one of the blood vessels	59	18.6	86	31.4	61	27.9	86	9.1	63	7.9
velvet	F	cloth	67	29.9	83	27.7	76	35.5	84	53.6	58	46.6
velvety	6	smooth and soft	66	33.3	98	26.5	66	33.3	60	33.3	84	54.8

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
vengeance	6	revenge	79	38.0	75	28.0	76	52.6	83	44.6	53	54.7
venison	6	meat	65	12.3	77	14.3	76	13.2	75	16.0	68	11.8
ventilate	6	change the air	75	12.0	84	11.9	87	17.2	69	20.3	76	31.6
venture	6	risk	60	23.3	67	26.9	79	20.3	61	32.1	62	27.4
venturesome	6	daring	60	13.3	67	16.4	79	15.2	81	29.6	62	22.6
veranda	6	porch	65	20.0	77	24.7	76	21.1	75	21.3	68	8.8
verb	6	part of speech	64	34.4	72	34.7	75	41.3	81	59.3	65	67.7*
verdict	6	decision of a jury	69	29.0	91	26.4	83	31.3	69	29.0	61	37.7
verse	4	line of a poem	64	29.7	72	26.4	75	26.7	81	40.7	65	56.5
versus	6	against	64	20.3	72	29.2	75	33.3	81	28.4	65	44.6
very	F	much	51	51.0	63	61.9	66	83.3*	53	90.6*	53	92.5*
vessel	F	hollow holder	69	26.1	91	19.6	83	20.5	69	37.7	61	42.6
vest	4	jacket	54	31.5	86	29.1	73	31.5	77	35.1	63	44.4
veterinarian	6	doctor who treats animals	59	39.0	86	34.9	61	42.6	86	47.7	63	52.4
vibrate	6	move rapidly	64	42.2	72	26.4	75	24.0	81	39.5	65	53.6
vibration	6	rapid movement	65	36.9	91	39.6	69	44.9	68	50.0	64	57.8
vicinity	6	neighborhood	84	25.0	80	15.0	66	30.3	89	32.6	62	33.9
vicious	6	wicked	59	20.3	86	39.5	61	39.3	88	39.8	63	44.4
victim	6	person injured	54	14.6	86	22.1	73	28.8	77	37.7	63	49.2
victor	6	winner	65	23.1	91	28.6	69	26.1	68	32.4	64	54.7
victorious	6	successful	65	29.2	77	39.0	76	40.8	75	62.7	68	58.8
victory	F	defeat of an enemy	48	12.5	70	20.0	59	30.5	66	45.5	57	52.6
view	F	look at	65	16.9	77	27.3	76	39.5	75	50.7	68	57.4
village	F	town	65	27.7	77	36.4	76	53.9	75	73.3*	68	70.6*
villain	6	wicked person	65	15.4	77	26.6	76	30.3	75	29.3	68	33.6
vine	F	plant	57	29.8	64	25.0	63	42.9	76	53.9	53	47.2

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
vinegar	4	acid	61	19.7	81	28.4	77	39.0	61	49.2	70	74.3*
vineyard	6	place with grape vines	84	20.2	80	27.5	66	33.3	89	52.8	62	59.7
violete	6	break a law	71	21.1	87	24.1	72	16.7	80	31.3	56	48.2
violence	6	rough force	65	27.7	91	24.2	69	43.5	68	38.2	64	46.9
violent	6	acting with strong force	73	34.2	71	11.3	73	30.1	72	30.6	67	41.8
violet	F	plant	65	29.2	77	32.5	76	52.6	75	62.7	60	57.4
violinist	6	person who plays the violin	58	24.1	86	41.9	76	44.7	70	52.6	58	65.5
vise	6	tool	64	26.1	72	20.8	75	8.0	81	23.5	65	23.1
visible	4	can be seen	65	20.0	91	20.9	69	27.5	60	51.5	64	40.4
vision	6	sight	51	43.1	63	47.6	66	40.9	53	50.9	53	62.3
visit	F	go to see	51	31.4	63	60.3	66	83.3*	53	83.0*	53	92.5*
visitor	F	guest	66	28.8	73	43.8	66	56.1	86	65.1	71	73.2*
visor	6	brim of a cap	58	24.1	86	12.8	76	18.4	70	15.4	58	15.5
visual	6	of sight	51	29.4	63	33.3	66	42.4	53	56.5	53	54.7
vitamin	6	substance for the body	79	21.5	76	30.3	91	40.7	64	70.3*	69	73.9*
vocabulary	6	words	69	27.5	91	38.5	83	53.0	69	66.7*	61	77.0*
vocal	6	of the voice	66	13.6	73	42.5	66	48.5	86	48.8	71	56.3
voice	F	sound made through the mouth	59	39.0	56	46.4	49	59.2	67	64.2	55	67.3*
voiceless	6	silent	65	9.2	77	23.4	76	40.8	75	70.7*	68	61.8
volcanic	6	of a volcano	69	33.3	76	38.2	64	40.6	77	32.5	52	38.5
volt	6	unit for measuring electric energy	69	20.3	76	22.4	64	32.8	77	37.7	52	63.5
volume	6	book	69	26.1	91	28.6	83	25.3	69	33.3	61	39.3
voluntary	6	not forced	65	24.6	77	29.9	76	32.9	75	26.7	68	32.4
volunteer	6	offers one's services	65	33.8	77	33.8	76	34.2	75	45.3	68	35.8
vomit	6	throw up	64	23.4	72	26.4	75	18.7	81	28.4	65	40.0
vote	F	choice	69	30.4	91	42.9	83	60.2	69	75.4*	61	80.3*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
voter	6	person who votes	79	30.4	75	40.0	76	60.5	83	78.3*	53	77.4*
vow	6	promise	68	17.6	71	23.9	74	33.8	67	50.7	63	50.8
voyage	4	travel	60	31.7	67	34.3	79	43.0	81	55.6	62	62.9

-186-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9.		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
wad	6	small soft mass	69	26.1	91	29.7	83	32.5	69	26.1	61	39.3
waddle	6	walk with short steps	80	37.5	85	47.1	84	29.3	79	35.4	60	38.3
wade	4	walk through water	66	37.9	73	53.4	66	50.0	86	57.0	71	50.7
wafer	6	thin cake	51	27.5	63	25.4	66	34.8	53	56.6	53	52.8
waffle	6	cake	79	30.4	75	30.7	76	40.8	83	53.0	53	52.8
wag	F	move from side to side	69	27.5	91	29.7	83	37.3	69	42.0	61	50.8
wage	6	amount paid for work	76	26.3	91	25.3	75	32.0	85	41.2	57	49.1
wager	6	bet	73	21.9	71	26.8	73	17.3	72	25.0	67	23.9
wagon	F	cart	73	43.8	71	56.3	73	52.1	72	55.6	67	77.6*
wail	6	cry	61	36.1	74	36.5	85	24.7	64	31.3	73	32.1
waist	F	middle of a person's body	64	31.3	72	34.7	75	42.7	81	61.7	65	72.3*
walt	F	stay	60	26.7	67	58.2	79	72.2*	81	72.8*	62	93.5*
waiter	4	man who waits on table	60	13.3	67	23.9	79	27.3	81	34.6	62	40.3
waitress	6	woman who waits on table	66	34.8	73	45.2	66	45.5	86	60.5	71	70.4*
wake	F	stop sleeping	65	35.4	77	46.8	76	67.1*	75	60.0*	66	66.8*
wakeful	6	without sleep	73	34.6	79	41.8	69	63.8	66	69.7*	68	73.5*
waken	F	stop sleeping	60	26.7	67	37.3	79	49.4	81	59.3	62	77.4*
walk	F	go on foot	73	42.5	71	67.6*	73	32.2*	72	91.7*	67	92.5*
walker	4	foot passenger	73	32.9	71	50.7	73	63.5*	72	81.9*	67	80.6*
wall	F	side of a building	73	28.8	71	39.4	73	64.4	72	69.4*	67	80.6*
wallet	4	small case for money	73	31.5	71	46.5	73	46.6	72	58.3	67	77.6*
wallop	6	beat	69	29.0	91	22.0	83	23.9	69	29.0	61	45.9
wallow	6	roll about	73	19.2	71	21.1	73	17.3	72	30.6	67	29.9
walnut	F	nut	59	13.6	86	34.9	61	50.3	88	59.1	63	69.8*
waltus	6	animal	45	37.3	67	26.9	79	35.4	63	47.6	53	54.7
waltz	6	dance	64	17.2	72	29.2	75	34.7	81	37.0	65	47.7
wand	6	stick	73	30.1	71	29.6	73	31.5	72	33.3	67	32.8

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
wander	4	roam	59	27.1	86	25.6	61	39.3	88	46.6	63	54.0
wanderer	4	walker	64	48.4	72	34.7	75	28.0	81	28.4	65	33.8
want	F	wish	65	24.6	77	40.3	76	55.3	75	76.0*	68	76.5*
warbler	6	bird	73	37.0	71	21.1	73	12.3	72	16.7	67	16.4
ward	6	division of a hospital	70	21.4	88	19.3	62	19.4	79	16.5	66	25.8
wardrobe	6	closet	41	22.0	57	15.8	70	22.9	71	22.5	51	35.3
warehouse	4	storeroom	49	24.5	62	48.4	57	57.9	67	64.2	57	68.4*
warfare	6	fighting	68	13.2	80	43.8	64	50.0	68	61.8	71	71.8*
warm	F	more hot than cold	51	45.1	63	63.5	66	63.3*	53	66.8*	53	84.9*
warth	4	heat	78	23.1	79	30.4	69	52.2	66	71.2*	68	79.4*
warn	F	give notice	68	20.6	80	20.0	64	40.6	68	61.8	71	66.2
warning	4	notice	64	18.8	72	27.8	80	41.3	76	63.2	50	72.0*
warrior	4	fighter	76	23.7	87	51.7	73	56.2	78	61.5	63	60.3
warship	4	ship	65	30.8	77	29.9	76	38.2	75	56.0	68	41.2
wart	4	lump on skin	69	26.1	76	31.6	64	35.9	77	49.4	52	61.5
wash	F	clean	49	36.7	56	76.8*	72	84.7*	63	92.1*	61	93.4*
washbowl	6	sink	59	37.3	86	38.4	61	52.5	88	69.3*	63	77.8*
washer	F	person who washes	77	37.7	94	45.7	62	56.5	77	68.8*	68	86.8*
washer	6	flat ring	79	16.5	76	27.6	91	14.3	64	7.8	69	17.4
washing	6	clothes washed	44	34.1	76	53.9	88	69.3*	59	72.9*	55	89.1*
washroom	4	bathroom	64	46.4	72	45.8	80	70.0*	76	72.4*	50	80.0*
wasp	4	insect	44	22.7	76	32.9	88	46.9	59	54.2	55	74.5*
waste	F	throw away	56	21.4	77	31.2	79	49.4	76	59.2	47	70.2*
wasteful	6	using too much	75	13.3	88	33.0	77	40.3	74	59.5	72	66.7*
watch	F	look	76	46.1	91	68.1*	75	78.7*	85	88.2*	57	91.2*

WORD	DALE GRADE	DEFINITION	AGES											
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17			
			N	%	N	%	N	%	N	%	N	%		
watchdog	6	guard	41	17.1	57	29.8	70	35.7	71	43.7	51	74.5*		
watchful	6	alert	58	29.3	70	27.1	58	17.2	57	31.6	56	51.8		
watchman	F	guard	68	17.6	71	22.5	74	39.2	67	50.2	63	66.7*		
watchtower	4	lookout	60	36.7	79	39.2	82	54.9	66	66.7*	72	75.0*		
watchword	6	secret word	49	24.5	69	24.6	65	35.4	79	40.5	49	46.9		
waterfall	4	falls	48	20.0	70	42.9	59	45.0	66	69.7*	57	77.2*		
waterproof	F	will not let water through	52	30.0	75	42.7	85	50.6	64	56.3	52	61.5		
waterway	6	river	60	36.8	80	43.8	64	62.5	68	91.2*	71	90.1*		
waterworks	6	pipes	84	28.6	80	37.5	66	39.4	89	59.6	62	74.2*		
watery	6	liquid	71	22.5	98	24.5	79	45.6	65	53.8	64	75.0*		
watt	6	unit of electric power	68	32.4	80	22.5	65	36.9	65	53.8	71	45.1		
wave	F	moving swell of water	69	27.5	91	34.1	83	56.6	69	65.2	61	75.4*		
wavy	6	having curves	65	32.3	77	29.9	76	39.5	75	46.7	68	40.5		
waxen	6	like wax	41	34.1	57	49.1	70	31.4	71	46.5	51	45.1		
way	F	road	49	34.7	62	59.7	57	61.4	67	64.2	57	71.9*		
wayside	F	edge of a road	65	30.0	61	52.5	90	48.9	67	62.7	73	76.7*		
we	F	persons speaking	56	28.6	77	27.3	79	50.6	76	73.7*	47	74.5*		
weak	F	not strong	65	26.2	91	46.2	69	66.7*	68	82.4*	64	90.6*		
weaken	F	make weak	58	31.0	70	44.3	58	55.2	57	59.6	56	71.4*		
weakling	6	weak person	70	40.0	80	50.0	58	50.0	74	51.4	67	53.7		
weakness	F	fault	40	18.8	70	28.6	59	33.9	66	47.0	57	42.1		
wealth	F	riches	57	21.1	64	17.2	63	38.1	76	52.6	53	62.3		
wealthy	6	rich	68	19.1	80	20.0	65	44.6	65	47.7	71	53.5		
wean	6	break off	48	20.8	70	37.1	59	42.4	66	39.4	57	49.1		
weapon	F	thing used in fighting	70	15.7	95	31.6	72	31.9	77	40.3	61	57.4		
wear	F	have on the body	74	37.8	79	43.0	77	57.1	80	70.0*	57	68.4*		
wearily	6	in a tired manner	75	26.7	84	27.4	87	23.0	69	29.0	76	38.2		

-283-

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		13 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
wearisome	6	tiring	67	19.4	70	18.6	73	19.2	72	37.5	73	30.1
weary	F	tired	84	21.4	80	25.0	66	24.2	89	31.5	62	41.9
weasel	6	animal	67	19.4	70	20.0	73	27.4	72	41.7	73	32.9
weathercock	6	vane	51	27.5	63	27.0	66	36.4	53	45.3	53	56.6
weave	F	firm thread	64	12.5	72	27.8	80	31.3	76	48.7	50	48.0
weaver	4	person who weaves	64	21.9	76	25.0	70	40.0	78	44.9	60	58.5
web	F	net	61	27.9	74	28.4	85	49.4	64	64.1	78	64.1
wed	6	marry	68	36.8	71	35.2	74	37.8	67	52.2	63	66.7*
wedge	6	wood used in separating	48	25.0	70	35.7	59	45.8	66	48.5	57	59.6
Wednesday	F	day of the week	69	39.1	93	67.7*	70	88.6*	80	93.8*	70	92.6*
wee	F	small	70	27.1	80	45.0	58	32.8	74	37.8	67	49.3
weed	F	plant	52	28.8	75	42.7	85	60.0	64	62.5	52	80.8*
weedy	4	full of weeds	70	35.7	95	38.9	72	44.4	77	63.6	61	60.7
week	F	seven days	44	31.8	76	59.2	88	77.3*	59	93.2*	55	89.1*
weekend	4	Saturday and Sunday	60	46.7	57	75.4*	66	84.8*	64	89.1*	53	96.2*
weekly	6	every week	48	43.8	79	52.9	59	64.4	66	68.2*	57	77.2*
weep	F	cry	64	21.9	72	25.0	80	40.0	76	50.0	50	68.0*
weigh	F	find out how heavy	65	26.2	91	39.6	69	59.4	68	80.9*	64	90.6*
weight	4	how heavy a thing is	65	21.5	77	45.5	76	60.5	75	77.3*	66	83.8*
weighty	4	heavy	60	28.3	57	38.6	66	71.2*	64	70.3*	53	90.6*
weird	6	strange	64	14.1	76	17.1	70	37.1	78	30.8	60	35.0
welcome	F	greet	78	28.2	73	26.0	81	40.7	81	46.9	71	59.2
welfare	6	health	59	22.0	70	20.0	76	23.7	64	26.6	56	39.3
well	F	hole	65	27.7	71	31.0	75	34.7	66	30.3	60	40.0
welt	6	ridge on skin	61	23.0	81	19.8	85	17.6	74	24.3	59	23.7
west	F	direction	70	28.6	80	43.8	58	36.2	74	58.1	67	73.1*
westerly	6	from the west	67	25.4	83	31.3	76	35.5	84	42.9	58	39.7
western	F	from the west	60	21.7	83	30.1	75	45.3	79	68.4*	60	66.7*

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
wet	F	not dry	48	31.3	70	57.1	59	47.5	66	86.4*	57	86.0*
whack	6	blow	58	32.6	70	40.0	58	53.6	57	47.4	56	53.6
whale	F	animal	66	33.3	98	42.9	66	53.0	60	80.0*	84	81.0*
whalebone	6	teeth of whales	54	27.8	86	46.5	73	46.5	77	61.0	63	74.6*
whaler	6	hunter	64	37.5	76	32.9	70	44.3	78	48.7	60	65.0
wharf	6	platform	54	22.2	86	20.9	73	41.1	77	49.4	63	39.7
wheat	F	grain	54	13.5	86	39.5	73	54.8	77	67.5*	63	77.8*
wheel	F	anything round	54	37.0	66	46.5	73	56.9	77	74.0*	63	81.0*
when	F	at what time	54	46.3	86	59.3	73	63.0	77	70.1*	63	82.5*
whenever	F	at any time	65	16.9	77	29.9	76	56.5	75	64.0	62	55.9
where	F	in what place	64	42.2	72	47.2	75	62.7*	81	69.1*	65	83.1*
whereabouts	6	near what place	73	35.6	71	36.6	73	35.6	72	69.4*	67	64.2
whereupon	6	after which	60	13.3	67	32.8	79	30.0	81	45.7	62	50.0
wherever	6	whatever place	73	37.0	71	49.3	73	54.8	72	69.4*	67	76.1*
which	F	the one that	60	20.0	67	29.9	79	45.5	81	46.9	62	66.1
whichever	6	any one	69	20.3	76	55.0	64	21.9	77	27.3	52	44.2
whiff	6	puff of air	69	26.1	91	23.1	83	30.5	69	33.3	61	47.5
while	F	space of time	67	17.9	83	34.9	76	50.0	84	60.7	58	74.1*
whimper	6	cry softly	60	21.7	67	14.9	79	31.5	81	28.4	62	40.3
whine	6	complaining sound	68	20.6	71	28.2	74	23.0	67	26.4	63	38.1
whip	F	beat	54	20.4	86	25.6	73	31.5	77	27.3	63	47.6
whirl	F	spin	44	20.5	76	28.9	88	31.8	59	37.3	55	52.7
whirlpool	6	water spinning round	61	31.1	74	43.2	85	50.6	64	79.7*	78	70.5*
whirlwind	6	air spinning	45	26.7	68	35.3	79	40.1	57	82.5*	51	84.3*
whisk	6	sweep	54	31.5	86	24.4	73	26.0	77	22.1	63	38.1
whisker	4	hair on face	77	26.0	94	33.0	62	32.3	77	27.3	66	33.8

MCRD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
whisper	F	speak softly	68	20.6	71	39.4	74	52.7	67	58.2	63	57.1
white	F	color	59	64.4	56	78.6*	49	67.8*	67	85.1*	55	87.3*
written	6	bleach	66	30.3	98	32.7	66	36.4	60	58.3	84	59.5
whittle	6	cut wood	45	42.2	68	19.1	79	25.3	57	19.3	51	21.6
who	F	any person	59	30.5	86	36.0	61	63.9	88	79.5*	63	87.3*
whoever	6	any person	45	13.3	68	36.8	79	50.5	57	73.7*	51	80.4*
whole	F	all	65	20.0	61	29.5	90	37.8	67	50.7	73	65.8
wholesome	6	healthful	77	36.4	94	31.9	62	30.7	77	35.1	68	32.4
whom	F	what person	56	32.1	61	39.3	60	56.7	74	66.9*	49	83.7*
whoop	6	shout	67	41.0	70	50.0	73	32.9	72	44.4	73	47.9
whose	F	of whom	68	32.4	71	52.1	74	66.2	67	77.6*	63	88.9*
why	F	for what reason	60	16.7	67	31.3	79	59.5	81	74.1*	62	74.2*
wick	6	part of a candle	44	25.0	76	26.3	86	12.2	59	16.6	55	30.9
wicked	F	bad	58	32.0	70	41.4	58	25.9	57	33.3	56	50.0
wickedness	4	sin	66	27.3	98	22.4	66	36.4	60	30.0	84	45.2
wide	F	filling much space	79	31.6	75	40.0	76	50.0	83	53.0	53	71.7*
widen	6	spread	60	21.7	67	22.4	79	29.1	81	42.0	62	41.9
widow	4	woman whose husband is dead	76	25.0	91	33.0	75	34.7	85	57.6	57	59.6
width	4	distance across	64	20.1	72	25.0	75	32.0	81	51.9	65	60.0
wiener	6	frankfurter	65	26.2	77	29.9	76	55.3	75	52.0	68	50.0
wigwag	6	wave	51	27.5	63	23.8	66	24.2	53	26.3	53	50.9
wigwam	6	hut	60	21.7	67	29.9	79	25.3	81	42.0	62	45.2
wildcat	F	animal	44	25.0	76	47.4	88	70.5*	59	74.6*	55	85.5*
wilderness	6	forest	60	21.7	67	28.4	79	26.6	81	46.9	62	58.1
wildfire	6	blaze	79	29.1	75	32.0	76	46.1	83	55.4	53	64.2
will	F	is going to	60	20.3	67	43.3	79	49.4	81	56.0	52	69.4*
willing	F	ready	76	30.3	91	31.9	75	40.0	85	44.7	57	63.2

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
willow	F	tree	59	30.5	86	25.6	61	39.3	88	38.6	63	34.9
win	F	gain	65	33.8	91	29.7	69	46.4	68	39.7	64	53.1
wind	F	air	65	63.1	91	72.5*	69	81.2*	68	98.5*	64	93.8*
wilt	6	become limp	73	32.9	71	19.7	73	19.2	72	43.1	67	34.3
windpipe	6	passage from the throat to the lungs	66	21.2	98	21.4	66	22.7	60	36.7	84	52.4
window	F	opening for light or air	58	29.3	70	50.0	58	67.2*	57	71.9*	56	82.1*
windowpane	6	piece of glass	54	31.5	86	40.7	73	50.7	77	58.4	63	69.8*
windmill	F	machine worked by the wind	78	29.5	82	48.8	82	62.2	85	72.9*	61	82.0*
windshield	6	sheet of glass	69	21.7	76	19.7	64	29.7	77	29.9*	52	44.2
windy	F	stormy	63	28.6	82	53.7	71	63.4	82	73.2*	67	85.1*
wine	F	juice of grapes	49	32.7	69	31.9	65	43.1*	79	53.2*	49	73.5*
wing	F	part of a bird	60	40.0	67	49.3	79	73.4*	81	72.8*	62	83.9*
wink	F	close and open the eyes	66	27.1	73	30.1	69	42.0	70	71.4*	66	63.6
winner	F	person that wins	70	19.7	80	37.5	58	53.4*	74	77.0*	67	85.1*
winter	F	season	74	32.4	79	53.2	77	67.5*	80	78.8*	57	91.2*
wintery	6	cold	51	29.4	63	19.0	66	37.9	53	47.2	53	62.3*
wipe	F	rub	51	15.7	63	36.5	66	54.5	74	60.4	49	67.9*
wire	F	metal thread	56	14.3	61	29.5	60	36.7	74	73.0*	66	75.5*
wireless	6	radio	70	18.6	88	25.0	62	43.5	79	51.9	71	68.2*
wisdom	6	being wise	68	17.6	80	17.5	65	38.5	66	43.9	57	46.5
wisecrack	6	joke	48	25.0	70	21.4	59	35.6	65	69.2*	71	81.7*
wish	F	want	66	19.1	80	28.8	66	58.5*	60	71.7*	84	85.7*
witch	F	ugly old woman	59	48.5	98	48.0	76	74.7	64	62.5	56	64.3
witchcraft	6	magic power	59	25.4	70	40.0	49	42.9	67	40.3	55	58.2
with	F	among	59	25.4	56	25.0	71	32.4	82	30.5	67	40.3
withdraw	6	take back	63	27.0	82	19.5	71	32.4	82	30.5	67	40.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
withdrew	6	went away	63	27.0	82	19.5	71	32.4	82	30.5	67	40.3
wither	6	dry up	59	25.4	56	16.1	49	30.6	67	16.4	55	30.9
withhold	6	keep back	80	32.5	85	32.9	84	32.1	79	21.5	60	43.3
within	4	inside	41	34.1	57	31.6	70	37.1	71	47.9	51	72.5
without	4	not having any	48	22.9	70	35.7	59	39.0	66	66.7	57	80.7
withstand	F	hold out against	49	18.4	62	14.5	57	42.1	67	34.3	57	56.1
witness	6	see	49	32.7	62	21.0	57	17.5	67	28.4	57	36.8
witty	6	clever	64	28.1	72	31.9	80	30.0	76	32.9	50	52.0
wizard	6	magician	80	27.5	85	41.2	84	41.7	79	55.7	60	75.0
wolf	F	animal	80	32.5	85	50.6	84	72.6	72	90.3	60	90.0
woman	F	lady	67	37.3	70	42.9	73	74.0	72	63.3	73	89.0
womanhood	4	time of being a woman	80	37.5	85	44.7	84	50.0	79	70.3	60	75.0
womanly	6	like a woman	75	34.7	88	42.0	77	54.5	74	46.1	72	42.6
wonder	F	feeling of surprise	56	26.0	77	38.4	79	54.3	76	55.6	71	71.8
wonderful	F	surprising	78	21.8	73	38.4	81	59.5	81	69.3	71	78.9
wood	F	lumber	60	23.3	70	44.3	79	52.4	82	63.3	38	71.7
woodchuck	4	animal	80	32.5	85	38.8	84	47.1	79	62.5	60	74.3
woodcraft	6	knowledge about the woods	69	23.2	93	47.3	70	76.7	80	92.3	70	88.9
woodcutter	4	man who cuts down trees	76	50.0	87	54.0	73	71.4	78	78.4	63	77.8
wooded	6	covered with trees	75	38.7	88	52.3	77	40.3	74	52.7	72	77.8
wooden	F	made of wood	75	21.3	88	36.4	77	80.7	74	83.6	72	62.5
woodland	4	land covered with trees	49	44.9	62	67.7	57	70.9	67	85.5	57	94.2
woodpecker	F	bird	56	39.3	77	58.4	79	69.7	76	71.9	47	87.2
woodwork	6	things made of wood	60	40.0	57	68.4	66	81.8	64	78.1	53	90.6
woody	4	having many trees	60	27.1	56	53.6	49	65.3	67	69.7	55	67.7
wool	F	fur	59	30.8	73	42.3	75	60.0	66	69.7	60	66.6
woodsman	4	man skilled in hunting	65									

WORD	DALE GRADE	DEFINITIONS	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
woolen	F	made of wool	80	30.0	5	36.5	84	45.2	79	62.0	60	78.3*
woolly	6	fleecy	70	30.0	69	26.1	87	44.8	67	55.2	57	66.7*
workman	F	worker	70	44.3	88	39.0	62	56.5	79	70.9*	66	74.2*
workmanship	4	skill in working	79	26.6	76	26.3	91	54.9	64	53.1	69	72.5*
workroom	6	shop	65	46.2	71	60.6	75	70.7*	65	84.8*	60	86.7*
workshop	6	studio	60	16.7	57	29.8	66	33.3	64	45.3	53	69.8*
world	F	all things	60	21.7	83	43.4	75	56.0	79	79.7*	60	80.0*
worm	F	animal	60	25.0	57	43.9	66	66.7*	64	71.9*	53	86.8*
worn	F	used	69	26.1	93	22.6	70	35.7	70	36.3	70	54.3
worry	F	be afraid	65	27.7	89	33.7	69	55.1	71	69.0*	66	53.0
worse	F	less well	80	26.0	85	17.6	84	36.9	79	35.4	60	48.3
worship	6	pay honor	65	16.9	71	25.4	75	33.3	66	33.3	60	46.7
worshipper	6	believer	78	19.2	73	26.0	81	40.7	61	44.4	71	56.3
worst	F	least good	60	26.7	57	28.1	66	36.4	64	40.6	53	47.2
worth	F	value	69	16.0	93	16.1	70	31.4	60	48.8	70	64.3
worthless	6	useless	60	26.3	83	27.7	75	34.7	79	63.3	60	56.7
wound	F	hurt	65	29.2	71	22.5	75	30.7	66	34.8	60	56.7
wrap	F	cover	65	26.2	89	31.5	69	37.7	71	63.4	66	60.6
wrapper	4	covering	64	16.6	72	27.8	80	47.5	76	60.5	50	70.0*
wreath	6	ring of flowers	79	22.8	76	26.3	91	26.4	64	45.3	69	36.2
wretch	6	bad person	78	34.6	79	27.8	69	26.1	66	33.3	68	27.9
wretched	6	unhappy	68	22.1	80	25.0	65	29.2	65	33.8	71	33.8
wreck	F	destroy	80	25.0	85	31.8	84	46.4	79	51.9	60	68.3*
wreckage	6	what is left of a wreck	56	33.9	77	40.3	79	41.8	76	35.5	47	42.6
wren	F	bird	84	26.2	80	37.5	66	31.8	69	33.7	62	36.7
wrench	6	tool	80	33.6	85	24.7	84	32.1	69	41.8	60	53.3

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	%	N	%	N	%	N	%	N	%
wrench	6	jerk	65	26.2	89	25.8	69	29.0	71	45.1	66	43.9
wrestle	6	struggle	68	23.5	80	18.6	64	51.6	66	36.2	71	64.8
wrestler	6	person who wrestles	65	30.8	80	31.5	69	43.5	71	71.8*	66	63.6
wriggle	6	squirm	69	29.0	93	41.9	70	40.0	80	47.5	70	50.0
wring	F	squeeze hard	49	26.5	62	32.3	57	21.1	67	26.4	57	38.6
wringer	6	machine for squeezing out water	79	32.9	76	18.4	91	35.2	64	39.1	69	31.9
wrinkle	6	fold	59	15.3	56	16.1	49	8.2	67	6.0	55	20.0
wrist	6	joint	41	26.8	57	33.3	70	41.4	71	50.7	51	58.8
write	F	make words	59	52.5	70	70.0*	76	82.9*	64	93.8*	56	87.5*
writer	4	author	79	11.4	76	17.1	91	34.1	64	50.0	69	66.7*
wrong	F	not true	84	25.0	80	47.5	66	63.6	89	78.7*	62	82.3*

WORD	DALE GRADE	DEFINITION	AGES							
			8 + 9	10 + 11	12 + 13	14 + 15	16 + 17			
			N	Z	N	Z	N	Z	N	Z
xylophone	6	instrument	68	27.9	74	37.8	76	38.2	70	41.4
									69	62.3

WORD	DATE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
yacht	6	boat	69	24.0	76	15.8	64	17.2	77	19.5	52	23.1
yam	6	potato	69	14.5	76	28.9	64	31.3	77	31.2	52	28.0
yank	6	jerk	64	20.1	76	31.9	70	34.0	70	41.0	60	46.7
yard	F	garden	69	42.0	76	52.9	64	64.1	77	72.74	52	65.4
yarn	F	thread	71	29.6	67	34.5	72	55.6	60	61.3	56	66.1
yawn	4	open the mouth wide	64	20.1	76	34.2	70	32.9	70	35.9	60	58.3
year	F	twelve months	70	37.1	63	60.3	76	69.54	70	54.34	50	94.04
yearly	6	once a year	69	36.2	76	36.0	64	51.6	77	71.44	52	61.5
yearn	6	wish for	69	26.1	76	21.1	64	26.6	77	20.6	52	32.7
yeast	6	substance to make dough rise	65	10.5	59	20.2	69	26.1	71	50.7	66	56.1
yell	F	cry out	61	34.4	61	36.3	77	33.6	61	44.3	70	62.64
yellow	F	color	63	63.5	62	70.74	71	90.14	62	91.54	67	100.04
yesterday	F	day before today	65	40.0	9	56.2	69	61.24	71	60.74	66	92.44
yet	F	at the same time	71	26.0	67	31.0	72	26.4	60	37.5	56	35.7
yoke	6	wooden frame	71	10.3	67	21.8	72	20.0	60	30.0	56	32.1
yoke	6	part of a garment	64	14.1	76	13.2	70	11.4	72	15.4	60	30.0
yolk	F	part of an egg	59	23.7	66	27.9	61	50.6	60	55.7	63	76.24
you	F	anybody	54	40.7	66	55.8	73	57.5	77	60.04	63	73.04
young	F	not old	61	44.3	61	49.4	85	64.7	74	77.04	59	66.44
younger	F	child	75	26.7	84	31.0	87	49.4	69	60.74	76	78.04
your	F	belonging to you	60	21.7	79	29.1	82	46.3	66	54.5	72	56.3
youth	F	young people	71	32.4	87	31.0	72	45.8	80	75.04	56	78.64
youthful	6	young	65	21.5	71	35.2	75	34.7	66	53.0	60	61.7

WORD	DALE GRADE	DEFINITION	AGES									
			8 + 9		10 + 11		12 + 13		14 + 15		16 + 17	
			N	Z	N	Z	N	Z	N	Z	N	Z
zebra	4	animal	47	40.4	78	62.8	70	80.04	78	75.64	66	86.74
zero	4	nothing	76	39.5	87	46.0	73	60.3	78	70.34	63	84.14
zigzag	6	crooked	65	10.8	91	34.1	69	23.2	68	48.3	64	60.6
zinc	6	metal	65	13.8	77	13.0	76	46.1	75	44.0	68	61.2
zoo	6	place where animals are kept	70	42.9	63	55.6	76	78.9	70	90.04	58	93.9
zone	4	place	71	26.8	87	14.9	72	23.6	80	43.8	56	57.1

-293-

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

FORM NO.		TOTAL	AGES															BOYS	GIRLS
			7	8	9	10	11	12	13	14	15	16	17						
1	N Mean S.D. S.E.	376 38.89 16.30 .84	23 22.96 12.25 2.55	25 27.24 6.22 1.24	29 30.59 8.00 1.49	44 31.32 11.25 1.70	42 32.81 11.34 1.75	37 37.49 15.75 2.59	36 42.83 13.19 2.20	37 42.38 14.74 2.42	40 44.70 11.73 1.05	35 51.54 19.60 3.33	28 56.82 16.75 3.17	207 37.70 14.84 1.03	164 41.30 17.38 1.37				
2	N Mean S.D. S.E.	371 39.68 19.50 1.01	14 19.14 9.77 2.61	30 25.53 6.74 1.23	35 28.57 13.95 2.36	50 29.46 5.86 .83	41 35.41 12.65 1.98	30 37.73 11.77 2.15	39 38.82 20.37 3.26	34 48.29 18.32 3.26	34 53.09 21.11 3.62	34 52.91 20.84 3.57	30 62.30 19.69 3.59	201 38.83 18.25 1.29	163 41.44 20.56 1.61				
3	N Mean S.D. S.E.	377 37.35 18.04 .93	20 20.60 14.90 3.33	25 23.84 6.92 1.38	39 27.08 8.17 1.31	44 29.30 6.11 .92	28 32.93 13.97 2.64	40 31.10 11.93 1.89	35 40.30 14.82 2.51	36 43.25 16.69 2.78	45 47.07 17.57 2.62	32 53.19 21.75 3.85	33 53.21 21.69 3.78	200 36.09 17.14 1.21	168 40.31 18.11 1.40				
4	N Mean S.D. S.E.	358 38.10 17.74 .94	15 20.80 13.81 3.57	26 26.23 8.65 1.70	42 28.55 7.54 1.16	42 29.83 8.20 1.26	29 33.86 12.36 2.30	42 35.95 13.49 2.08	32 38.72 15.94 2.82	31 45.03 18.06 3.24	36 48.28 20.32 3.39	32 51.16 17.32 3.06	31 54.55 22.33 4.01	199 36.07 16.80 1.19	150 42.00 17.94 1.47				
5	N Mean S.D. S.E.	374 39.09 19.14 .99	18 19.72 10.53 2.48	29 25.17 5.24 .97	44 30.02 10.96 1.65	31 30.06 13.22 2.37	40 32.93 13.28 2.10	42 37.36 15.61 2.41	31 37.23 14.29 2.57	32 49.34 20.90 3.69	40 47.13 19.53 3.09	42 54.12 17.88 2.76	25 60.16 22.58 4.52	186 36.71 17.31 1.27	162 42.32 20.14 1.49				
6	N Mean S.D. S.E.	390 39.86 18.79 .95	17 25.00 9.17 2.22	32 26.38 8.21 1.45	37 29.46 8.75 1.44	49 29.04 7.05 1.01	42 33.55 9.78 1.51	45 39.49 15.16 2.26	38 48.05 21.79 3.53	36 48.81 22.43 3.74	33 49.91 18.12 3.15	41 53.15 20.77 3.24	20 58.35 20.48 4.58	218 38.02 17.36 1.18	167 42.44 20.49 1.59				
7	N Mean S.D. S.E.	371 39.51 18.01 .93	15 21.53 12.82 3.31	18 25.56 11.45 2.70	40 31.35 8.36 1.32	51 28.55 9.15 1.28	35 38.63 11.27 1.91	37 35.95 11.60 1.91	39 40.26 16.70 2.67	38 44.47 17.80 2.89	40 49.65 21.48 3.40	35 55.63 19.81 3.35	23 56.13 18.59 3.88	202 38.14 16.77 1.18	161 42.17 18.04 1.48				

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

FORM NO.		AGES																	BOYS	GIRLS
		TOTAL	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
8	N	366	17	25	35	38	29	41	38	39	42	35	27	183	179					
	Mean	39.78	17.59	26.96	26.17	30.29	34.59	41.44	40.82	50.59	44.60	52.40	58.81	40.43	40.08					
	S.D.	19.26	12.72	8.36	6.97	7.99	12.32	12.58	17.28	21.67	22.36	20.64	18.07	19.48	18.48					
9	N	355	17	27	42	41	35	34	30	46	31	37	15	191	181					
	Mean	38.57	24.88	28.22	28.00	30.29	33.46	34.41	42.30	49.41	47.39	54.30	48.67	38.03	39.36					
	S.D.	17.57	13.89	12.76	10.12	8.85	11.24	13.81	16.31	19.74	16.08	18.73	17.63	17.01	18.01					
10	N	354	17	30	40	38	25	31	45	40	30	36	22	190	181					
	Mean	39.19	22.82	24.27	29.68	31.50	33.72	38.29	44.56	44.25	44.07	53.39	60.23	37.60	41.31					
	S.D.	17.97	11.65	6.36	7.73	9.96	13.19	16.20	19.20	14.64	16.91	20.33	18.68	17.30	18.19					
11	N	360	16	30	36	44	29	31	38	34	36	35	31	193	181					
	Mean	40.37	24.81	26.17	30.94	32.23	32.97	36.65	38.39	54.82	46.61	51.89	57.19	39.34	42.55					
	S.D.	18.31	14.13	6.36	6.96	10.48	6.94	11.73	15.92	20.17	16.53	19.91	21.09	17.68	18.75					
12	N	363	16	30	33	45	31	33	37	42	36	36	24	203	191					
	Mean	37.67	21.50	30.57	27.36	29.82	34.26	37.58	38.84	38.79	44.33	51.89	55.71	36.48	40.19					
	S.D.	16.43	11.10	11.48	9.38	11.36	11.18	14.14	11.68	13.07	10.34	19.91	19.70	15.22	17.32					
13	N	369	13	25	40	37	24	38	52	37	30	45	28	187	176					
	Mean	39.11	19.38	26.12	28.53	30.19	35.13	35.61	40.52	45.70	47.53	49.51	57.06	36.53	42.31					
	S.D.	17.59	11.76	5.90	8.26	8.69	13.76	13.14	17.06	16.77	20.14	18.57	16.43	15.98	18.10					
14	N	373	14	23	37	43	36	40	42	34	32	42	30	180	187					
	Mean	38.48	22.36	24.83	28.16	30.09	29.47	38.05	40.79	46.32	49.50	48.07	55.33	35.53	42.26					
	S.D.	17.28	18.23	7.94	6.16	7.78	7.76	15.45	13.45	15.45	19.94	20.27	17.82	15.32	17.88					
15	N	377	15	22	39	40	34	41	44	25	39	45	33	198	179					
	Mean	41.52	29.27	25.82	27.08	32.45	33.47	40.17	42.23	49.36	50.59	55.31	59.18	39.91	43.68					
	S.D.	19.20	18.27	6.49	7.76	9.52	11.83	19.84	15.85	17.11	20.25	20.06	18.29	19.02	19.12					

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS																			
FORM NO.		TOTAL	AGES															MOE	STERR
			7	8	9	10	11	12	13	14	15	16	17						
16	N	367	16	24	26	50	43	28	35	35	41	30	31	30	22	28	203	153	
	Mean	41.34	24.13	26.96	28.62	30.14	33.81	39.21	48.66	50.74	56.56	50.63	52.00	52.00	57.04	57.04	39.74	44.27	
	S.D.	19.98	22.86	5.60	10.19	12.30	14.39	14.24	18.12	16.57	22.45	19.61	21.50	21.50	19.43	18.60	19.34	19.90	
	S.E.	1.04	5.71	1.16	2.00	1.81	2.19	2.69	3.06	2.80	3.51	3.10	3.86	3.86	3.86	3.86	1.20	1.39	
17	N	383	22	19	46	50	27	34	42	28	47	30	30	30	22	28	193	100	
	Mean	38.43	17.91	26.95	26.37	29.98	30.85	37.82	42.81	51.57	50.60	45.29	54.63	54.63	57.86	57.86	37.21	41.31	
	S.D.	18.00	12.30	4.30	5.25	8.33	13.13	16.52	17.33	18.28	19.39	13.68	19.19	19.19	23.49	23.49	15.85	18.92	
	S.E.	.92	2.62	.99	.77	1.18	2.53	2.83	2.67	3.45	2.83	2.22	3.50	3.50	3.01	3.01	1.14	1.41	
18	N	383	21	26	40	45	28	30	36	38	48	49	22	22	22	28	199	175	
	Mean	41.61	23.86	24.54	26.83	33.87	40.96	37.07	44.50	49.79	50.67	55.94	57.86	57.86	57.86	57.86	40.14	44.42	
	S.D.	20.55	15.51	5.88	6.89	12.51	18.73	18.26	18.45	18.74	20.40	21.79	23.49	23.49	23.49	23.49	20.49	19.81	
	S.E.	1.05	3.38	1.15	1.09	1.87	3.54	3.33	3.08	3.04	2.95	3.11	3.01	3.01	3.01	3.01	1.43	1.50	
19	N	376	19	26	33	52	34	25	36	45	43	41	22	22	22	28	194	176	
	Mean	41.66	22.68	28.96	28.79	30.73	34.50	39.63	47.89	54.49	46.72	54.90	60.55	60.55	60.55	60.55	39.71	44.82	
	S.D.	19.86	10.41	9.18	7.48	11.24	15.65	18.68	18.63	20.10	19.59	18.95	21.08	21.08	21.08	21.08	18.15	18.41	
	S.E.	1.02	2.39	1.80	1.30	1.56	2.68	3.74	3.10	3.00	2.99	2.96	4.49	4.49	4.49	4.49	1.33	1.34	
20	N	394	16	35	42	47	47	27	35	46	31	40	28	28	28	28	202	181	
	Mean	38.62	32.81	25.69	28.98	28.96	35.68	35.00	39.49	43.20	51.90	51.30	55.82	55.82	55.82	55.82	36.31	41.14	
	S.D.	18.69	17.50	7.19	10.47	10.26	15.21	11.68	20.43	19.03	22.60	21.02	16.93	16.93	16.93	16.93	17.76	18.13	
	S.E.	.94	4.38	1.22	1.62	1.50	2.22	2.25	3.45	2.81	4.06	3.32	3.20	3.20	3.20	3.20	1.75	1.61	
21	N	397	13	27	49	56	35	43	32	43	42	28	29	29	29	28	221	176	
	Mean	39.55	28.23	25.96	28.90	30.88	31.86	36.37	44.44	45.21	55.05	51.39	50.38	50.38	50.38	50.38	37.19	42.58	
	S.D.	19.32	14.50	4.60	8.92	9.98	11.42	13.34	22.12	20.36	20.62	23.57	21.67	21.67	21.67	21.67	18.60	19.79	
	S.E.	.97	4.02	.89	1.27	1.33	1.93	2.03	3.91	3.11	3.18	4.45	4.02	4.02	4.02	4.02	1.25	1.50	
22	N	399	11	31	49	42	43	36	40	32	47	36	24	24	24	24	226	171	
	Mean	37.33	27.73	26.77	30.69	31.12	31.19	33.83	39.79	37.66	45.00	49.75	57.04	57.04	57.04	57.04	35.67	39.63	
	S.D.	16.93	7.02	6.12	10.23	8.99	12.55	12.58	17.03	17.25	21.30	18.92	16.43	16.43	16.43	16.43	15.49	18.52	
	S.E.	.85	2.12	1.10	1.46	1.39	1.91	2.10	2.57	3.05	3.11	3.15	3.35	3.35	3.35	3.35	1.08	1.42	
23	N	396	19	30	41	50	48	33	46	42	23	36	26	26	26	26	213	176	
	Mean	38.58	27.32	28.67	26.49	29.90	31.38	35.76	42.11	47.50	45.70	54.42	60.81	60.81	60.81	60.81	36.76	41.11	
	S.D.	19.15	17.77	9.23	7.73	13.38	10.14	17.69	19.58	21.06	23.39	15.13	17.80	17.80	17.80	17.80	19.09	18.50	
	S.E.	.96	4.08	1.69	1.21	1.89	1.46	3.08	2.09	3.37	4.00	2.45	3.51	3.51	3.51	3.51	1.21	1.39	

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

FORM NO.	TOTAL	AGES															BOYS	GIRLS
		7	8	9	10	11	12	13	14	15	16	17						
24	N	21	33	43	40	47	34	39	30	40	37	26	206	187				
	Mean	22.48	24.91	29.86	30.23	30.04	37.09	41.92	46.11	55.20	55.41	50.85	30.45	42.76				
	S.D.	10.54	4.38	12.15	7.59	15.25	11.53	14.19	17.63	18.46	10.42	21.32	16.69	19.54				
	S.E.	2.30	.76	1.85	1.20	2.22	1.98	2.27	2.86	2.92	3.03	4.10	1.16	1.43				
25	N	16	28	41	51	42	37	33	39	41	42	20	210	172				
	Mean	18.56	27.04	28.27	32.25	33.57	37.57	47.21	47.64	49.66	57.52	57.07	39.42	42.94				
	S.D.	12.01	6.06	7.06	11.38	12.19	11.86	16.15	19.67	14.70	14.46	10.67	16.46	10.41				
	S.E.	3.00	1.15	1.10	1.59	1.86	1.95	2.01	3.15	2.31	2.23	3.53	1.12	1.40				
26	N	15	32	35	43	40	37	39	42	42	32	26	208	171				
	Mean	26.67	26.16	27.86	30.98	32.63	33.27	42.64	47.36	44.45	45.59	53.77	36.81	39.68				
	S.D.	19.42	6.47	6.65	10.69	10.71	10.91	17.81	20.02	20.60	17.58	16.93	16.30	18.10				
	S.E.	5.01	1.14	1.12	1.63	1.69	1.79	2.85	3.09	3.18	3.11	3.32	1.13	1.38				
27	N	24	37	38	50	38	40	37	44	30	41	31	218	186				
	Mean	25.79	26.30	28.37	29.66	31.03	34.95	40.89	42.86	45.03	49.10	51.97	35.13	38.18				
	S.D.	6.64	6.39	6.26	9.91	9.02	12.80	12.88	17.43	16.41	19.34	20.26	16.01	15.16				
	S.E.	1.36	1.05	1.02	1.40	1.46	2.02	2.12	2.63	3.00	3.02	3.64	1.06	1.15				
28	N	16	34	45	46	30	36	55	30	34	39	30	209	183				
	Mean	30.81	25.32	25.49	27.37	34.23	37.33	36.60	40.83	49.35	47.31	56.00	36.05	37.75				
	S.D.	15.83	7.16	7.04	8.62	10.23	14.37	10.45	19.17	16.70	18.26	15.08	16.09	16.10				
	S.E.	3.96	1.23	1.05	1.27	1.87	2.40	1.41	3.50	2.86	2.92	2.73	1.11	1.19				
29	N	16	26	58	47	33	28	38	36	53	32	30	202	168				
	Mean	32.56	26.42	27.55	31.19	30.88	34.04	38.82	40.56	44.45	49.53	52.53	36.08	38.03				
	S.D.	23.82	5.28	9.14	10.16	8.03	10.34	14.93	14.76	17.16	18.71	19.12	15.95	16.01				
	S.E.	5.96	1.03	1.20	1.48	1.40	1.95	2.42	2.46	2.36	3.31	3.49	1.12	1.17				
30	N	18	33	45	45	28	36	45	39	42	38	33	200	198				
	Mean	27.94	26.24	26.33	28.78	26.36	31.58	40.73	35.69	44.19	48.29	51.55	33.77	37.59				
	S.D.	11.42	4.59	6.48	6.61	7.09	10.35	19.62	18.25	20.67	21.72	21.51	15.75	18.94				
	S.E.	2.69	.80	.97	.99	1.34	1.72	2.92	2.92	3.19	3.52	3.74	1.11	1.35				
31	N	12	35	43	47	35	39	43	38	47	39	22	213	185				
	Mean	30.50	26.03	24.00	29.66	28.63	32.85	39.02	45.66	50.13	48.62	49.73	36.14	37.79				
	S.D.	13.78	6.11	6.89	7.83	9.93	10.40	13.56	19.32	21.22	17.03	22.02	17.45	16.75				
	S.E.	3.98	1.03	1.05	1.14	1.68	1.67	2.07	3.13	3.10	2.73	4.69	1.20	1.23				

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

FORM NO.		TOTAL	AGES															NOTE	CIRCUIT
			7	8	9	10	11	12	13	14	15	16	17						
32	N Mean S.D. S.E.	404 36.48 18.77 .93	13 22.92 13.81 3.83	34 24.65 6.48 1.11	41 24.83 7.45 1.16	48 26.92 13.51 1.95	36 31.08 15.21 2.54	46 33.80 13.18 1.94	41 39.95 18.22 2.84	37 39.76 18.58 3.05	32 53.53 19.29 3.41	49 48.16 19.60 2.80	27 53.22 22.34 4.30	216 33.78 16.88 1.14	182 40.15 20.08 1.48				
33	N Mean S.D. S.E.	378 37.65 17.04 .88	12 25.50 8.62 2.49	29 26.24 4.24 .79	50 28.76 9.48 1.34	36 29.19 7.47 1.25	39 29.44 12.73 2.04	38 36.84 12.62 2.05	38 44.53 20.42 3.31	39 42.28 17.13 2.74	44 44.55 16.22 2.44	29 48.48 17.07 3.17	24 59.25 20.40 4.16	203 37.04 16.34 1.15	172 38.73 17.70 1.35				
34	N Mean S.D. S.E.	384 35.54 15.77 .80	18 23.78 8.74 2.06	26 26.96 5.99 1.17	45 26.73 5.99 1.17	49 27.33 7.76 1.11	38 29.00 7.10 1.15	35 32.11 10.19 1.72	37 35.03 14.01 2.30	32 43.63 15.93 2.82	48 42.90 15.33 2.21	28 56.50 18.95 3.58	28 50.68 20.08 3.79	211 34.21 15.63 1.08	166 37.48 15.52 1.21				
35	N Mean S.D. S.E.	381 36.56 15.55 .80	6 22.17 13.85 5.65	30 25.60 7.03 1.28	40 28.23 6.13 .97	62 27.76 8.43 1.07	33 31.30 7.78 1.36	39 30.26 10.04 1.61	33 43.48 16.78 2.92	28 42.50 12.16 2.30	49 44.02 15.12 2.16	36 52.03 16.57 2.76	25 52.36 19.67 3.93	211 35.43 14.53 1.00	166 38.44 16.49 1.28				
36	N Mean S.D. S.E.	379 39.15 18.59 .96	5 24.40 2.07 .93	24 24.92 7.42 1.51	42 28.62 6.00 .93	61 26.85 7.91 1.01	36 32.36 10.59 1.76	29 36.48 14.15 2.63	37 40.51 17.18 2.82	29 41.55 18.01 3.34	31 49.52 18.21 3.27	54 54.44 18.90 2.57	30 61.23 21.26 3.88	202 38.60 19.01 1.34	175 39.87 18.14 1.37				
37	N Mean S.D. S.E.	364 39.93 18.73 .98	14 22.14 8.40 2.25	23 26.52 5.12 1.07	38 26.92 8.77 1.42	47 32.34 8.97 1.31	34 32.24 12.05 2.07	44 35.61 13.68 2.06	33 41.70 18.96 3.30	27 43.30 14.77 2.84	34 46.59 19.27 3.30	36 54.61 20.15 3.36	34 68.03 13.28 2.28	193 37.73 19.05 1.37	169 42.49 17.77 1.37				
38	N Mean S.D. S.E.	378 38.89 17.85 .92	13 24.85 11.65 3.23	23 26.74 5.30 1.11	40 28.78 7.07 1.12	49 28.67 6.19 .88	33 32.64 9.11 1.59	43 35.47 12.48 1.90	28 43.36 20.91 3.95	37 42.35 16.36 2.69	45 45.29 18.65 2.78	38 49.92 18.77 3.05	29 65.07 19.68 3.65	207 38.52 17.62 1.22	168 39.70 18.03 1.39				
39	N Mean S.D. S.E.	374 38.66 15.08 .78	17 31.35 12.98 3.15	26 27.69 5.92 1.16	42 27.29 7.12 1.10	38 32.74 9.04 1.47	36 32.33 10.02 1.67	50 38.64 13.21 1.67	26 47.92 16.86 3.31	30 44.40 15.72 2.87	40 46.60 14.85 2.35	44 43.77 14.13 2.13	25 54.12 17.70 3.54	212 38.92 15.34 1.05	159 38.07 14.63 1.16				

CHARACTERISTICS OF SEVENTY-THREE TEST POINTS

FORM NO.		TOTAL	AGES																	BOYS	GIRLS
			7	8	9	10	11	12	13	14	15	16	17								
40	N Mean S.D. S.E.	365 38.22 17.58 .92	17 25.65 16.83 4.08	20 24.65 3.62 .81	50 27.56 7.29 1.03	42 30.12 9.91 1.53	38 35.82 11.22 1.82	33 32.45 11.46 2.00	25 38.36 11.41 2.28	36 44.72 18.77 3.13	37 49.27 21.46 3.53	42 51.14 18.81 2.90	25 56.20 18.76 3.75	207 36.44 17.44 1.21	153 40.78 17.13 1.30						
41	N Mean S.D. S.E.	371 36.00 16.71 .87	12 23.25 12.00 3.46	28 27.46 6.25 1.18	52 27.46 5.98 .83	38 27.95 7.52 1.22	37 30.46 13.15 2.16	36 31.33 10.98 1.83	40 35.88 13.15 2.08	29 39.69 13.46 2.50	37 47.41 19.56 3.21	36 48.36 19.69 3.28	26 56.96 22.69 4.45	190 36.55 16.20 1.15	152 39.28 17.03 1.30						
42	N Mean S.D. S.E.	376 38.47 16.39 .85	16 27.38 16.00 4.00	29 26.93 4.37 .81	32 30.16 11.17 1.97	44 32.00 10.26 1.55	37 30.03 7.55 1.24	48 35.29 12.32 1.78	37 39.92 14.27 2.35	31 45.94 16.71 3.00	43 50.07 17.85 2.72	38 49.26 18.75 3.04	21 54.38 17.89 3.90	211 36.59 14.46 1.01	159 41.21 17.80 1.41						
43	N Mean S.D. S.E.	380 40.16 17.35 .89	13 21.77 12.05 3.34	19 28.68 6.53 1.50	55 31.73 12.54 1.69	45 30.93 6.37 .95	34 36.44 8.70 1.49	47 38.62 16.62 2.42	30 43.40 16.48 3.01	37 48.57 16.17 2.66	43 46.77 19.18 2.92	29 59.10 20.19 3.75	28 50.57 17.66 3.34	215 39.69 16.94 1.16	162 41.13 17.67 1.39						
44	N Mean S.D. S.E.	362 38.54 17.91 .94	16 27.44 10.15 2.54	23 24.87 8.45 1.76	45 29.20 11.18 1.67	44 31.48 12.35 1.86	36 31.31 9.37 1.56	38 36.26 13.79 2.24	31 42.55 18.19 3.27	34 40.24 17.77 3.05	36 54.58 18.75 3.13	33 54.00 21.29 3.71	26 50.08 17.56 3.44	200 35.84 16.79 1.16	158 42.16 19.26 1.33						
45	N Mean S.D. S.E.	365 38.81 16.29 .85	14 25.50 4.26 1.14	26 27.12 9.12 1.79	42 30.24 8.01 1.24	42 31.69 9.39 1.53	38 31.11 9.93 1.61	34 36.91 16.99 2.91	30 45.00 14.91 2.72	28 40.21 12.31 2.33	40 51.30 20.10 3.18	37 48.49 14.56 3.39	34 51.29 18.64 3.69	185 36.55 15.55 1.14	175 41.89 18.85 1.26						
46	N Mean S.D. S.E.	375 38.63 16.65 .86	15 27.13 15.54 4.01	29 25.45 4.01 .74	49 27.33 6.65 .95	43 29.67 8.22 1.25	36 33.11 8.47 1.41	36 39.22 16.69 2.78	33 43.48 15.10 2.63	29 44.66 16.21 3.01	37 46.92 17.05 2.93	42 53.86 17.51 2.70	26 53.62 15.68 3.08	193 38.33 17.32 1.26	174 39.63 18.76 1.19						
47	N Mean S.D. S.E.	382 37.99 17.13 .88	17 24.06 8.00 1.94	29 25.90 7.20 1.34	41 28.24 7.27 1.14	53 28.30 10.45 1.44	35 30.09 7.59 1.28	35 36.00 12.26 2.07	27 44.63 14.93 2.87	35 44.31 17.19 2.91	44 48.73 18.67 2.81	43 53.37 20.04 3.06	23 51.52 16.53 3.45	214 37.19 16.61 1.14	162 39.70 17.58 1.38						

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

FORM NO.	TOTAL	AGES																	BOYS	GIRLS
		7	8	9	10	11	12	13	14	15	16	17								
48	N	374	14	30	35	40	41	36	33	29	36	33	29	42	30	125	106			
	Mean	40.30	28.86	24.93	26.91	32.19	30.95	36.19	44.76	55.59	54.74	53.31	51.83	30.62	42.69					
	S.D.	19.05	18.27	7.46	9.94	12.09	13.11	12.95	14.89	20.86	21.18	16.70	16.80	17.72	19.98					
	S.E.	.99	4.88	1.36	1.68	1.75	2.05	2.16	2.59	3.07	3.27	2.78	3.43	1.30	1.47					
49	N	369	20	26	42	40	32	29	36	33	36	33	33	32	29	201	162			
	Mean	40.57	22.05	27.23	25.52	29.40	30.75	39.86	46.89	51.52	52.50	57.90	58.62	37.71	45.66					
	S.D.	20.79	12.40	8.01	4.47	10.34	7.43	20.12	20.59	22.00	20.04	19.71	23.66	10.97	21.97					
	S.E.	1.08	2.77	1.57	.69	1.49	1.31	3.74	3.43	3.83	3.54	3.04	4.28	1.34	1.73					
50	N	371	16	24	43	33	37	37	36	28	44	29	38	44	29	208	161			
	Mean	40.72	22.44	27.63	28.98	30.70	33.54	34.73	44.75	50.71	54.75	49.52	57.90	37.68	44.61					
	S.D.	17.59	7.44	4.98	6.30	8.32	14.99	10.93	14.69	16.31	18.43	16.52	17.47	16.35	18.42					
	S.E.	.91	1.86	1.02	1.27	1.45	2.46	1.80	2.45	3.08	2.78	2.49	3.24	1.13	1.45					
51	N	363	13	29	41	35	34	34	53	29	38	24	38	33	24	184	177			
	Mean	38.88	28.54	25.10	27.78	29.83	29.26	36.00	43.92	45.90	50.37	52.48	54.54	36.78	41.41					
	S.D.	17.78	17.48	6.47	7.34	8.53	8.74	11.71	15.31	17.03	21.24	22.07	17.80	16.80	18.28					
	S.E.	.93	4.85	1.20	1.15	1.44	1.50	2.01	2.10	3.16	3.45	3.94	3.63	1.24	1.37					
52	N	372	15	22	38	46	37	38	37	47	37	23	32	37	23	181	185			
	Mean	39.05	24.60	26.55	24.68	28.37	33.46	36.03	40.38	51.23	57.91	45.97	55.17	40.16	40.33					
	S.D.	18.92	17.05	8.52	11.03	9.63	9.61	12.17	17.85	20.22	21.12	17.12	18.78	18.93	18.76					
	S.E.	.98	4.40	1.82	1.79	1.42	1.58	1.97	2.93	2.95	3.73	2.81	3.91	1.41	1.38					
53	N	358	21	28	37	36	35	39	36	29	37	33	27	33	27	196	153			
	Mean	36.05	29.43	22.46	25.92	27.53	33.34	34.28	39.25	42.34	43.81	44.82	54.26	34.25	38.21					
	S.D.	18.52	22.20	7.12	6.28	7.91	15.31	13.83	19.81	20.71	20.43	17.47	22.95	10.43	17.76					
	S.E.	.98	4.84	1.35	1.03	1.32	2.59	2.21	3.30	3.85	3.36	3.04	4.42	1.32	1.43					
54	N	354	12	20	44	36	36	34	46	38	34	16	38	34	16	190	156			
	Mean	38.97	21.83	26.85	27.18	28.00	32.78	38.53	40.59	48.79	47.53	54.32	57.94	39.03	39.99					
	S.D.	18.79	19.48	5.12	6.47	5.22	10.14	13.61	16.11	20.42	22.75	20.97	23.27	19.01	18.15					
	S.E.	1.00	5.62	1.15	.98	.87	1.69	2.33	2.38	3.31	3.69	3.60	5.82	1.30	1.46					
55	N	343	18	22	37	33	37	39	37	34	32	24	30	32	24	180	151			
	Mean	39.71	24.28	26.36	29.14	31.03	36.81	39.72	43.65	48.59	47.80	49.94	53.79	38.92	41.67					
	S.D.	17.17	16.27	5.46	7.34	9.93	13.75	13.12	18.07	15.17	18.27	19.52	18.62	15.10	18.89					
	S.E.	.93	3.83	1.16	1.21	1.73	2.26	2.10	2.97	2.60	3.34	3.45	3.00	1.13	1.54					

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

FORM NO.		TOTAL	AGES														BOYS	GIRLS
			7	8	9	10	11	12	13	14	15	16	17					
56	N Mean S.D. S.E.	346 39.21 18.94 1.02	12 23.92 8.50 2.45	22 25.82 5.43 1.16	34 27.76 9.20 1.58	41 28.88 7.81 1.22	36 34.33 13.45 2.24	38 34.03 15.34 2.49	41 44.59 20.14 3.14	37 44.03 19.64 3.23	39 49.33 18.51 2.96	28 56.82 18.77 3.55	18 60.11 23.42 5.52	193 37.91 18.61 1.36	149 41.66 19.69 1.56			
57	N Mean S.D. S.E.	341 38.48 17.05 .92	12 25.50 12.25 3.54	20 27.70 6.04 1.35	40 26.00 8.40 1.34	38 31.11 8.51 1.38	32 37.66 12.21 2.16	44 37.60 15.56 2.35	35 42.49 13.71 2.32	37 40.68 16.81 2.76	45 51.00 21.43 3.19	20 49.60 19.81 4.43	18 49.94 19.45 4.50	112 37.34 13.90 1.10	154 40.24 11.20 1.07			
58	N Mean S.D. S.E.	332 36.45 17.18 .94	10 26.00 4.22 1.33	20 24.65 6.19 1.38	24 24.53 8.47 1.73	37 26.27 8.16 1.34	39 29.62 9.76 1.56	51 33.67 11.99 1.68	37 43.41 17.70 2.91	35 37.69 15.62 2.64	24 45.58 20.94 4.27	30 55.43 22.12 4.04	25 49.28 15.90 3.18	182 39.58 17.35 1.29	247 37.82 17.83 1.40			
59	N Mean S.D. S.E.	340 36.54 17.66 .96	12 22.50 12.14 3.50	21 26.71 4.55 .99	31 22.43 7.01 1.26	28 30.14 9.77 1.85	47 30.49 12.86 1.88	43 32.02 11.59 1.77	42 42.74 19.53 3.01	35 39.06 20.85 3.52	29 43.03 20.23 3.76	32 52.22 13.41 2.37	20 57.95 15.57 3.40	193 39.75 16.85 1.21	146 38.32 18.45 1.34			
60	N Mean S.D. S.E.	320 38.99 18.06 1.01	7 29.00 8.21 3.10	23 26.70 4.30 .90	34 27.56 7.88 1.35	30 29.27 10.01 1.83	34 34.79 10.53 1.81	28 34.00 11.62 2.20	35 40.43 17.91 3.03	43 41.09 17.22 2.63	33 52.12 19.35 3.37	34 54.38 23.43 4.02	19 50.53 21.41 4.91	162 36.62 17.26 1.36	133 41.59 18.80 1.52			
61	N Mean S.D. S.E.	319 38.69 19.17 1.07	12 24.33 10.53 3.04	12 24.67 4.66 1.34	33 25.48 10.22 1.78	30 28.13 7.43 1.36	37 32.11 11.11 1.83	41 39.20 14.88 2.32	38 36.24 16.96 2.75	33 51.91 21.03 3.66	30 43.83 21.40 3.91	33 53.88 22.69 3.95	20 54.60 20.01 4.47	166 36.20 17.19 1.33	150 41.75 20.20 1.69			
62	N Mean S.D. S.E.	320 40.08 18.11 1.01	9 28.00 1.73 .58	19 26.74 4.49 1.03	30 28.97 8.35 1.52	36 30.17 11.11 1.85	33 34.36 12.56 2.19	36 33.31 11.26 1.88	29 43.55 15.61 2.90	37 44.19 16.22 2.67	42 47.60 18.54 2.86	25 54.72 23.74 4.75	24 63.08 19.11 3.90	160 40.23 17.63 1.39	157 40.24 18.89 1.49			
63	N Mean S.D. S.E.	314 38.78 18.69 1.05	13 23.62 15.28 4.24	19 24.21 8.30 1.90	30 25.47 5.62 1.03	32 31.13 6.12 1.08	24 29.58 8.21 1.68	37 35.84 15.27 2.51	35 37.71 17.22 2.91	31 46.06 19.39 3.48	32 47.16 19.38 3.43	31 51.84 20.58 3.70	30 58.33 18.92 3.45	157 38.45 17.84 1.42	149 39.85 19.24 1.58			

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

FORM NO.	TOTAL	AGES																	BOYS	GIRLS
		7	8	9	10	11	12	13	14	15	16	17								
64	N	305	13	26	23	34	28	30	27	40	27	32	25	155	143					
	Mean	40.09	17.23	26.69	26.57	32.65	36.50	34.70	42.15	44.45	48.44	56.38	59.84	39.19	42.43					
	S.D.	17.91	14.20	6.10	7.60	12.87	10.00	9.43	15.85	15.86	17.03	19.17	17.21	16.36	18.43					
	S.E.	1.03	3.94	1.20	1.58	2.21	1.89	1.72	3.05	2.51	3.28	3.39	3.44	1.31	1.54					
65	N	308	8	22	26	40	30	30	29	31	35	28	29	169	136					
	Mean	40.16	26.63	28.68	25.35	28.35	40.10	30.60	44.00	49.13	49.54	51.68	56.21	38.96	41.87					
	S.D.	19.16	3.93	6.80	7.05	7.57	15.37	12.60	20.76	21.17	19.95	19.63	20.38	18.55	19.76					
	S.E.	1.09	1.39	1.45	1.38	1.20	2.81	2.30	3.85	3.80	3.37	3.71	3.78	1.43	1.71					
66	N	302	12	18	23	32	25	37	33	38	33	29	22	171	130					
	Mean	39.44	25.92	27.56	26.22	30.84	34.96	33.65	40.18	41.74	51.18	50.17	60.91	37.97	41.50					
	S.D.	17.24	3.50	5.91	8.28	8.02	9.88	11.09	14.77	15.30	19.28	21.01	18.79	17.28	17.88					
	S.E.	.99	1.01	1.39	1.73	1.42	1.98	1.82	2.57	2.48	3.36	3.90	4.01	1.32	1.50					
67	N	296	10	21	38	29	27	25	24	36	31	33	22	170	125					
	Mean	37.94	27.80	27.81	27.50	30.24	36.85	36.72	45.17	40.78	40.90	48.52	50.55	36.11	40.55					
	S.D.	17.17	9.32	5.10	8.53	8.84	13.08	13.79	19.79	16.45	18.66	19.66	24.23	14.93	19.59					
	S.E.	1.00	2.95	1.11	1.38	1.64	2.52	2.76	4.04	2.74	3.35	3.42	5.17	1.15	1.75					
68	N	313	13	27	33	33	24	33	33	34	30	27	26	160	125					
	Mean	40.08	29.54	24.78	27.42	31.18	37.58	40.70	43.09	44.24	44.83	54.37	60.58	37.05	43.27					
	S.D.	18.46	20.31	8.18	6.31	10.35	12.23	15.35	17.98	14.21	19.24	21.96	19.87	16.89	19.56					
	S.E.	1.04	5.63	1.57	1.10	1.80	2.50	2.67	3.13	2.44	3.51	4.23	3.90	1.54	4.87					
69	N	307	14	22	28	41	27	38	23	31	29	32	22	160	141					
	Mean	40.41	32.36	26.32	27.29	29.61	35.00	36.95	48.00	44.55	49.86	53.44	63.86	38.76	42.55					
	S.D.	18.83	23.78	5.51	7.05	12.12	11.97	11.82	15.28	16.05	18.88	20.84	21.86	18.19	18.56					
	S.E.	1.07	6.35	1.17	1.33	1.89	2.30	1.92	3.19	2.88	3.50	3.68	4.66	1.44	1.56					
70	N	309	9	19	37	29	32	34	26	38	36	24	25	164	143					
	Mean	40.93	28.44	25.21	27.95	28.76	36.41	35.62	38.58	48.63	53.53	58.33	59.56	38.91	43.76					
	S.D.	19.84	3.09	4.61	6.16	10.06	14.34	13.43	13.42	17.72	23.95	21.04	24.77	19.52	20.10					
	S.E.	1.13	1.03	1.06	1.01	1.87	2.53	2.30	2.63	2.88	3.99	4.46	4.95	1.52	1.60					

CHARACTERISTICS OF SEVENTY-THREE TEST FORMS

FORM NO.		AGES																	BOYS	GIRLS
		TOTAL	7	8	9	10	11	12	13	14	15	16	17							
71	N Mean S.D. S.E.	307 39.58 18.44 1.05	8 22.13 10.56 3.73	21 24.43 4.34 .95	37 27.27 5.26 .86	34 30.21 8.67 1.49	36 37.58 13.15 2.19	29 37.10 10.32 1.92	29 38.24 16.16 3.00	28 44.07 17.46 3.30	29 48.00 18.13 3.37	34 54.12 21.68 3.72	22 64.59 22.15 4.72	156 36.58 15.15 1.21	146 42.91 20.96 1.72					
72	N Mean S.D. S.E.	311 39.32 18.63 1.06	11 24.73 19.61 5.91	14 23.57 5.26 1.41	31 27.58 7.10 1.27	33 26.33 8.27 1.44	35 33.17 10.00 1.69	45 33.89 13.51 2.01	34 41.62 16.95 2.91	30 51.43 16.77 3.06	27 52.22 20.18 3.88	34 52.97 19.93 3.42	17 61.65 17.25 4.18	161 37.20 17.33 1.37	146 41.76 19.57 1.62					
73	N Mean S.D. S.E.	291 44.76 21.42 1.26	5 11.20 15.35 6.87	19 27.68 6.44 1.48	32 27.84 7.85 1.39	23 28.04 9.23 1.92	40 37.38 10.91 1.73	37 44.95 17.79 2.92	29 49.34 17.99 3.34	25 51.68 17.55 3.51	28 56.82 22.98 4.34	33 61.82 22.80 3.97	20 69.80 19.54 4.37	160 41.95 19.85 1.57	129 48.95 22.17 1.95					
GRAND TOTAL		26,414	1,059	1,657	2,827	3,054	2,549	2,678	2,634	2,560	2,707	2,614	1,875	14,093	11,931					

7-Year-Olds and Totals

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
a	309	59.2	9	77.8	abundant	400	40.3	12	41.7
abandon	354	28.8	17	41.2	abuse	320	28.1	9	44.4
abbreviate	355	37.7	17	35.3	academy	291	39.2	5	.0
abbreviation	371	50.4	14	35.7	accent	400	31.0	12	33.3
abdomen	398	39.9	21	42.9	accept	374	35.6	17	29.4
abide	374	23.3	18	27.8	access	381	33.9	6	16.7
abide	358	23.2	21	19.0	accessory	383	26.4	21	9.5
ability	383	30.0	15	33.3	accidental	371	47.2	14	14.3
ablaze	378	23.5	12	33.3	accommodate	380	27.1	13	15.4
able	376	39.9	19	10.5	accompany	384	34.9	18	22.2
abnormal	354	46.6	12	33.3	accomplish	378	15.1	13	30.8
aboard	369	27.9	13	23.1	accomplished	309	19.4	9	33.3
abolish	397	27.5	16	56.3	accomplishment	397	17.4	13	23.1
about	291	42.6	5	.0	accord	314	30.6	13	23.1
above	355	43.9	17	23.5	accordance	367	35.4	16	25.0
abrupt	398	14.6	16	12.5	accordingly	372	33.1	15	.0
absence	374	27.0	17	23.5	accordion	366	25.7	17	.0
absent	367	40.3	16	12.5	account	383	27.9	22	27.3
absentee	404	32.9	13	15.4	account	396	37.6	19	21.1
absolute	358	37.4	15	26.7	accountant	396	39.6	19	26.3
absolutely	358	33.8	15	33.3	accrual	400	48.8	12	25.0
absorb	302	21.9	12	16.7	accuracy	319	31.3	12	25.0
absorbed	364	33.0	16	12.5	accurate	381	22.6	6	.0
absorbent	381	28.9	6	33.3	accuse	372	27.4	15	13.3
absurd	396	23.5	19	31.6	accustom	390	27.9	17	17.6
abundance	378	34.4	12	33.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
ace	358	30.2	21	28.6	adenoids	410	28.0	24	29.2
ache	366	41.5	17	17.6	adhesive	371	25.9	15	26.7
achieve	371	30.2	15	20.0	adjective	332	38.3	10	20.0
achievement	363	45.5	13	7.7	adjourn	390	23.6	17	11.8
acid	313	31.0	13	30.8	adjust	360	36.9	16	31.3
acorn	320	45.3	9	.0	adjustment	307	29.6	14	42.9
acquaint	347	24.2	12	.0	administration	332	26.2	10	30.0
acquaintance	381	19.9	6	16.7	administrator	369	32.5	20	5.0
acre	382	40.6	17	17.6	admiral	354	36.2	17	29.4
acreage	382	39.8	17	35.3	admiration	372	26.1	15	6.7
acrobat	307	36.8	8	12.5	admirer	382	26.2	17	23.5
across	373	42.9	14	35.7	admission	396	35.9	19	36.8
act	365	49.3	14	28.6	admission	377	35.3	20	10.0
act	340	57.1	12	25.0	admit	360	37.5	16	56.3
act	307	28.3	8	25.0	admittance	366	42.9	17	29.4
action	364	36.8	16	31.3	adobe	369	27.4	20	25.0
active	374	40.4	17	47.1	adopt	309	38.2	9	11.1
activity	313	47.0	13	15.4	adoption	305	37.0	13	23.1
actor	381	45.7	6	.0	adorable	395	31.9	16	6.3
actress	395	32.9	16	37.5	adrift	307	37.1	8	37.5
actual	410	22.2	24	33.3	adult	382	51.6	17	23.5
actually	354	28.2	12	33.3	advance	376	37.0	16	18.8
add	380	48.7	13	38.5	advancement	373	35.9	14	42.9
addition	376	46.5	23	13.0	advantage	371	21.0	16	25.0
additional	363	35.3	13	30.8	adventure	362	48.9	16	50.0
address	307	64.2	14	35.7	adventurer	358	39.9	15	6.7

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
adventurous	374	30.2	17	23.5	agency	402	37.6	18	27.8
adverb	365	34.5	14	35.7	agent	366	30.3	17	23.5
advice	376	33.2	16	31.3	aglow	404	27.7	13	.0
advisable	378	22.0	13	30.8	ago	362	53.9	16	37.5
advise	377	28.9	20	10.0	agency	313	25.9	13	23.1
advisor	374	36.1	14	14.3	agree	362	46.1	16	25.0
aerial	397	23.9	13	46.2	agreeable	381	30.4	6	33.3
afar	313	51.8	13	38.5	agreement	384	40.6	18	16.7
affair	307	19.5	14	21.4	agricultural	381	26.8	6	16.7
affect	354	30.5	12	33.3	agriculture	377	26.8	20	10.0
affection	358	34.6	21	33.3	aground	319	33.2	12	.0
affectionate	383	18.5	15	.0	ahead	395	32.2	16	25.0
afford	383	33.2	15	20.0	aid	354	51.1	17	17.6
affire	378	51.6	13	30.8	all	363	39.1	13	30.8
afloat	371	36.4	12	33.3	allment	397	26.4	16	18.8
afloat	395	32.7	16	25.0	alm	313	33.9	13	15.4
afloat	373	34.3	14	28.6	alm	371	55.0	12	33.3
afraid	383	65.0	21	42.9					
after	376	62.8	16	25.0	aircraft	371	53.4	14	14.2
afternoon	319	37.0	12	8.3	airfield	397	35.5	16	37.5
afterthought	362	33.4	16	37.5	airman	394	47.0	16	31.3
afterward	374	43.0	14	28.6	airplane	371	77.1	12	25.0
again	377	54.4	15	33.3	airport	383	62.1	15	26.7
against	374	25.7	17	29.4	airship	358	45.5	15	20.0
age	378	42.3	12	8.3					
aged	373	46.9	14	7.1					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
electric	291	38.1	5	40.0	almost	309	52.8	9	33.3
airway	369	45.3	13	15.4	aloft	384	27.3	18	16.7
airy	397	48.6	13	61.5	along	384	35.4	18	27.8
aisle	363	26.7	13	15.4	alongside	354	33.9	17	11.8
ajar	369	23.6	13	23.1	aloud	343	52.2	18	16.7
alarm	363	39.7	13	23.1	alphabet	395	48.6	16	25.0
album	354	29.7	12	8.3	alphabetical	308	58.1	8	25.0
alcohol	347	39.5	12	8.3	already	369	34.7	20	15.0
ale	402	28.9	18	22.2	also	402	46.0	18	33.3
alert	376	36.2	19	21.1	altar	343	37.0	18	27.8
alert	378	22.5	12	33.3	alternate	402	27.9	18	44.4
alfalfa	383	28.5	21	23.8	although	402	28.6	18	44.4
algebra	371	27.8	12	8.3	altitude	402	22.6	18	16.7
alibi	369	20.9	13	23.1	alto	311	21.5	11	9.1
allike	296	39.5	10	10.0	aluminum	371	36.4	14	14.3
allive	404	47.3	13	30.8	amateur	366	30.9	17	11.8
all	341	39.9	12	41.7	amaze	355	59.2	17	11.8
allegiance	384	26.3	18	22.2	amusement	371	35.6	15	26.7
alley	358	33.8	21	33.3	ambition	371	41.5	15	33.3
alligator	376	62.2	16	56.3	ambitious	376	24.2	19	21.1
allow	366	31.4	17	35.3	ambulance	400	45.5	12	16.7
allowable	363	49.9	13	7.7	ambush	402	23.6	18	22.2
allowance	375	30.4	15	20.0	amun	291	51.5	5	.0
almighty	380	35.8	13	15.4	amusement	410	23.4	24	29.2
almond	374	35.0	17	35.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
America	378	70.6	13	30.8	answer	394	56.1	16	31.3
American	384	61.7	18	33.3	ant	382	61.8	17	17.6
amidst	378	30.7	13	.0	antelope	302	42.1	12	33.3
amputation	320	40.3	7	28.6	anthem	399	18.5	11	27.3
among	291	33.7	5	.0	antiseptic	380	40.3	13	7.7
amongst	364	42.3	16	37.5	antler	371	27.0	12	41.7
amount	400	39.3	12	41.7	anvil	371	24.3	15	13.3
amuse	363	28.4	1	38.5	anxious	400	28.5	12	16.7
amusement	367	48.0	16	31.3	any	307	42.3	14	35.7
an	296	48.3	10	40.0	anybody	376	51.6	23	21.7
ancestor	305	31.8	13	15.4	anyhow	377	48.5	20	40.0
anchor	402	31.8	18	50.0	anyone	374	46.8	17	29.4
ancient	376	34.0	19	47.4					
and	378	49.5	13	15.4	anyway	307	35.2	14	14.3
angel	397	52.6	13	23.1	anywhere	377	52.8	15	40.0
angelic	302	47.7	12	16.7	apart	374	38.8	17	52.9
anger	377	35.0	15	33.3	apartment	309	49.2	9	44.4
angle	371	27.2	12	16.7	ape	395	51.9	16	43.8
angrily	404	41.8	13	38.5	aplace	314	39.5	13	23.1
angry	374	56.4	17	29.4					
animal	384	47.7	18	5.6	apologize	319	32.3	12	25.0
announce	307	31.6	8	12.5	apology	314	29.3	13	46.2
announcement	302	25.5	12	33.3	apostle	354	31.1	17	23.5
announcer	364	31.0	16	12.5	appeal	402	26.6	18	22.2
annoy	314	36.0	13	30.8	appear	395	22.3	16	12.5
annoyance	381	37.5	6	33.3					
annual	314	32.2	13	38.5					
another	398	46.7	16	18.8					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
appearance	404	30.4	13	23.1	archery	355	32.1	17	11.8
appendicitis	358	30.4	21	33.3	archway	340	27.4	12	16.7
appendix	383	41.8	22	.0	arctic	398	41.2	16	25.0
appetite	307	33.6	8	25.0	area	309	40.1	9	22.2
appetizer	400	21.5	12	25.0	arena	397	28.7	13	46.2
applaud	343	30.3	18	11.1	argue	366	25.1	17	5.9
applause	362	33.1	16	37.5	argument	296	26.4	10	40.0
apple	377	75.1	20	40.0	arise	314	35.7	13	.0
appliance	377	24.4	20	20.0	arithmetic	377	63.9	20	20.0
apply	376	22.3	16	18.8	ark	383	36.0	15	33.3
					arm	398	62.8	21	38.1
					arm	343	30.6	18	11.1
appoint	314	31.2	13	30.8	armful	410	40.7	24	20.8
appointment	332	20.8	10	30.0	armistice	354	37.6	17	5.9
appreciate	373	34.0	14	28.6	armor	402	23.9	18	22.2
approach	363	36.6	13	38.5	armored	374	40.4	14	7.1
approachable	377	24.1	20	15.0	armory	319	33.2	12	25.0
appropriate	302	29.8	12	.0	armpit	398	22.9	16	12.5
approval	378	40.5	13	30.8	arous	400	39.5	12	33.3
approve	366	36.3	17	29.4	army	354	61.3	12	25.0
apricot	362	30.1	16	12.5	arouse	366	41.8	17	23.5
April	371	72.5	18	27.8	arrange	378	18.0	12	25.0
apron	383	46.2	15	20.0	arrange	311	20.3	11	9.1
apt	340	25.9	12	8.3	arrangement	394	38.6	16	18.8
aquarium	371	34.2	12	16.7	arrest	399	37.3	11	.0
arch	377	25.7	20	10.0					
archer	365	42.5	14	21.4					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
arrival	398	36.7	21	9.5	assist	399	30.3	11	27.3
arrive	374	38.8	17	17.6	assistance	369	23.8	2	15.4
arrow	400	46.3	12	33.3	assistant	296	38.9	10	30.0
arrowhead	302	37.7	12	33.3	associate	369	29.0	20	20.0
art	369	43.1	20	10.0	association	355	36.1	17	11.8
arthritis	396	26.0	19	26.3	assorted	398	30.9	21	19.0
article	311	36.0	11	27.3	assortment	398	37.2	16	18.8
artificial	399	43.9	11	36.4	assume	343	39.9	18	33.3
artillery	320	20.3	7	57.1	assurance	307	26.4	14	21.4
artist	378	48.9	13	30.8	assure	366	38.5	17	41.2
as	375	34.7	15	20.0	assuredly	373	44.5	14	14.3
ashore	364	42.9	16	37.5	aster	354	22.3	12	16.7
aside	347	25.4	12	25.0	asterish	319	24.1	12	8.3
ask	314	65.9	13	30.8	astonishment	369	30.9	20	15.0
asleep	383	54.8	15	20.0	astronomy	382	43.7	17	11.8
asparagus	314	28.3	13	23.1	at	390	41.0	17	23.5
aspirin	309	41.4	9	22.2	athletic	390	41.8	17	29.4
ass	410	31.7	24	16.7	athletics	332	44.0	10	20.0
assemble	366	24.3	17	5.9	atlas	314	43.3	13	30.8
assembly	410	39.5	24	25.0	atmosphere	365	49.9	14	21.4
assign	302	24.5	12	16.7	atmosphere	369	36.6	20	25.0
assignment	371	21.8	16	31.3	atop	311	49.2	11	9.1
					attach	371	41.0	16	31.3
					attachment	343	23.9	18	38.9
					attachment	305	34.8	13	46.2

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
attack	365	35.9	14	21.4	avenue	362	50.0	16	31.3
attack	341	35.2	12	16.7	average	410	20.5	24	12.5
attempt	383	33.4	15	13.3	aviation	358	18.4	15	40.0
attend	376	34.8	19	31.6	avoid	347	36.0	12	25.0
attendance	340	40.6	12	16.7	awake	313	58.5	13	30.8
attention	398	37.9	21	19.0	awaken	381	44.4	6	.0
attentive	404	39.9	13	15.4	award	371	46.1	16	18.8
attic	377	42.4	20	20.0	aware	383	33.2	22	13.6
attitude	397	35.0	16	43.8	away	381	57.2	6	16.7
attorney	404	30.9	13	15.4	awful	374	61.0	14	35.7
attract	375	23.2	15	20.0	awfully	394	25.6	16	6.3
attractive	384	26.6	18	22.2	awhile	320	54.1	9	33.3
attraction	383	26.6	21	33.3	awkward	376	37.0	23	39.1
auburn	307	29.6	14	28.6	awning	341	26.1	12	41.7
auction	320	32.5	7	14.3	ax	308	64.6	8	12.5
audience	320	27.8	7	.0	axis	375	34.9	15	26.7
auditorium	358	40.5	21	33.3	axle	369	42.0	20	15.0
aunt	369	68.8	20	45.0	aye	379	49.6	5	60.0
author	371	44.5	14	21.4					
authority	364	26.4	16	.0					
auto	320	51.9	7	14.3					
autograph	382	56.3	17	23.5					
automatic	320	35.9	7	28.6					
autumn	320	47.8	7	57.1					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
bebe	376	56.4	16	43.8	balk	367	22.1	16	6.3
baboon	375	52.5	15	66.7	ball	358	37.4	15	6.7
baby	394	64.7	16	43.8	ball	363	65.3	13	23.1
babyhood	307	43.0	8	25.0	ballad	358	21.5	15	20.0
bachelor	311	33.1	11	9.1	ballet	307	47.6	14	42.9
back	371	45.0	15	6.7	ballot	376	70.5	23	34.8
backbone	363	38.0	13	23.1	ballroom	394	40.9	16	25.0
background	371	32.6	15	20.0	baloney	376	46.3	23	26.1
bacon	366	60.4	17	23.5	bamboo	376	24.7	23	21.7
bacteria	307	36.2	14	28.6	banana	376	19.9	23	17.4
bad	365	82.5	14	14.3	band	399	77.2	11	81.8
badge	375	29.6	15	40.0	bandage	366	36.1	17	23.5
badly	369	57.5	13	15.4	bandit	394	40.9	16	37.5
bag	383	60.1	15	40.0		320	31.9	7	.0
baggage	307	49.5	14	35.7	banish	365	26.6	14	35.7
bagpipe	376	27.7	23	17.4	banishment	398	20.9	21	28.6
baggy	296	20.9	10	30.0	banister	390	20.4	16	25.0
bail	369	31.7	20	10.0	bank	376	62.5	19	36.8
bail	314	27.1	13	30.8	bank	358	27.7	21	14.3
bait	320	42.2	9	33.3	bank	376	71.7	12	33.3
bake	319	68.0	12	50.0	bankbook	341	52.5	12	16.7
baker	371	68.7	15	40.0	banker	307	59.6	14	42.9
bakery	378	64.6	12	50.0	bankrupt	320	24.7	7	.0
balance	332	38.9	10	30.0	banquet	376	29.8	23	4.3
balcony	354	28.8	17	17.6	baptism	365	53.2	14	42.9
bald	380	40.0	13	15.4					
bale	354	35.3	17	35.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
baptize	369	40.1	20	.0	base	320	34.7	7	28.6
bar	383	31.1	22	13.6	base	382	24.3	17	41.2
bar	320	35.0	7	28.6	base	302	16.9	12	16.7
barbecue	394	39.3	16	43.8	bar	308	52.3	8	25.0
barber	362	64.4	16	31.3	batch	397	21.4	16	25.0
bare	397	38.0	16	31.3	bath	358	64.0	15	6.7
bareheaded	397	41.6	16	43.8	baths	340	58.2	12	16.7
barely	376	24.7	23	17.4	bathroom	378	64.0	12	8.3
bargain	371	31.8	15	26.7	baton	376	36.7	16	43.8
barge	399	22.1	11	27.3	batter	376	32.6	16	31.3
bark	371	38.3	15	26.7	batter	340	40.0	12	25.0
barley	311	27.7	11	.0	batter	309	31.1	9	22.2
barn	376	67.8	23	34.8	battery	362	52.8	16	31.3
barometer	398	47.2	16	18.8					
barracks	363	27.3	13	23.1					
barrel	341	40.8	12	16.7	battlefield	397	38.0	13	7.7
barrler	314	24.5	13	38.5					
base	343	43.7	18	38.9	battleship	402	39.3	18	22.2
baseball	397	73.8	13	23.1	beal	313	33.2	13	30.8
basement	400	52.8	12	25.0	bay	398	51.3	16	25.0
bashful	360	40.8	16	25.0	be	366	33.3	17	47.1
basic	363	37.2	13	15.4	beach	378	45.5	12	33.3
basin	377	26.3	20	15.0	beacon	402	17.2	18	27.8
basketball	375	79.2	15	46.7	bead	381	27.8	6	33.3
base	380	36.3	13	38.5	beak	320	47.5	9	44.4

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
beam	319	32.9	12	16.7	bes	305	62.6	13	15.4
bean	400	66.5	12	25.0	beech	397	35.0	16	37.5
bear	373	16.6	14	14.3	beef	378	66.1	13	46.2
bear	367	76.8	16	31.3	beefsteak	374	59.1	14	35.7
beard	372	43.8	15	26.7	beehive	371	44.7	12	33.3
bearer	360	24.2	16	18.8	beer	364	69.0	16	50.0
bearing	355	22.8	17	23.5	beeswax	375	44.8	15	26.7
beast	291	43.0	5	.0	beet	319	53.0	12	33.3
beat	371	46.1	16	6.3	beetle	371	48.8	12	16.7
beaten	384	41.1	18	16.7	before	358	47.2	21	28.6
beauteous	372	46.0	15	33.3	beforehand	366	31.1	17	11.8
beautiful	375	72.3	15	46.7	befriend	347	42.1	12	33.3
beautify	367	54.2	16	18.8	beg	364	34.3	14	14.3
beauty	380	53.4	13	7.7	beggar	364	32.7	16	12.5
beaver	307	56.7	14	42.9	bogin	366	47.5	17	17.6
because	379	46.4	5	40.0	beginner	311	42.4	11	18.2
beckon	383	30.0	15	6.7	begone	375	44.8	15	26.7
become	383	48.3	15	13.3	behave	397	35.3	13	46.2
becoming	371	35.0	15	26.7	behavior	319	18.8	12	8.3
bed	390	44.6	17	23.5	behind	355	47.6	17	23.5
bedchamber	397	43.3	13	.0	belch	400	23.3	12	41.7
bedclothes	332	43.1	10	20.0	belfry	404	21.0	13	15.4
bedding	360	23.1	16	.0	belief	397	33.0	13	38.5
bedroom	354	70.6	17	29.4	believe	311	46.9	11	45.5
bedspread	354	38.7	17	35.3	bell	355	64.5	17	29.4
bedstead	398	26.4	16	.0	bellboy	369	36.0	20	20.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
bellow	363	20.9	13	23.1	bevelch	375	20.5	15	26.7
bellows	369	32.8	20.	15.0	beyond	380	33.4	13	7.7
belly	307	30.3	8	37.5	bib	354	34.7	17	5.9
belong	390	39.5	17	23.5	Bible	378	64.0	13	46.2
belongings	382	24.1	17	11.8	bicker	366	21.6	17	17.6
beloved	376	37.5	16	31.3	bld	332	31.0	10	50.0
below	366	45.6	17	23.5	big	374	64.4	17	35.3
belt	383	60.6	15	26.7	bigger	376	68.4	19	26.3
bench	296	46.6	10	30.0	biggess	369	53.1	13	30.8
bend	347	36.3	12	33.3	bill	371	38.5	12	8.3
beneath	380	28.4	13	15.4	billboard	400	44.0	12	16.7
benefic	381	34.4	6	33.3	billion	358	62.6	15	46.7
berry	398	65.3	21	28.6	bla	911	26.0	11	9.1
berth	369	29.8	13	15.4	blind	374	32.4	17	17.6
beside	377	47.7	15	26.7	binder	343	27.7	18	22.2
besides	303	22.7	15	13.3	binding	378	38.1	13	53.8
best	371	70.1	16	37.5	biography	380	42.9	13	23.1
buc	379	36.9	5	20.0	birch	360	35.6	16	12.5
betray	364	24.5	14	28.6	bird	296	72.6	10	50.0
betrayal	367	35.1	16	31.3	birth	360	38.9	16	18.8
better	399	60.7	11	36.4	birthday	360	61.1	16	18.8
between	397	40.3	16	37.5	birthplace	378	54.2	13	23.1
beverage	343	41.7	18	16.7	biscuit	376	37.0	16	37.5
beverage	367	47.1	16	37.5	bishop	307	42.0	8	50.0
bevelldor	366	29.2	17	17.6					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
bit	377	46.4	15	40.0	blessing	364	44.5	14	7.1
bit	384	25.3	18	27.8	blind	397	59.2	13	36.5
bite	313	45.4	13	30.8	blindfold	376	53.2	23	17.4
biting	410	41.7	24	16.7	blindness	340	44.7	12	25.0
bitter	396	35.6	19	21.1	blinks	366	27.6	17	11.8
bitterness	371	34.5	14	21.4	blissful	343	35.6	18	22.2
bitterness	307	35.8	8	25.0	blister	355	26.5	17	23.5
black	382	75.7	17	47.1	blizzard	396	35.1	19	15.8
blackberry	374	67.1	18	11.1	block	382	44.8	17	35.3
blackbird	397	55.4	13	15.4	blockade	375	36.0	15	33.3
blacken	382	29.8	17	17.6	blockhead	402	39.1	18	33.3
blackness	378	52.6	12	33.3	blockhouse	400	24.0	12	25.0
blacksmith	354	60.2	17	29.4	blond	362	40.9	16	25.0
bladder	360	33.3	16	18.8	blood	377	46.5	20	20.0
blade	302	42.7	12	8.3	bloodcurdling	366	32.5	17	29.4
blame	371	42.6	16	25.0	bloodhound	320	43.1	7	14.3
blameless	410	32.9	24	16.7	bloodshed	374	45.2	17	41.2
blank	360	33.3	16	6.3	bloodshot	355	57.5	17	52.9
blanket	313	48.6	13	15.4	blocc	354	45.2	12	16.7
blare	371	34.5	12	41.7	blossom	307	54.4	8	37.5
blast	400	35.8	12	33.3	blot	366	26.2	17	17.6
blaze	381	29.7	6	.0	blotch	355	24.8	17	41.2
blanch	378	34.4	13	15.4	blotter	309	36.2	9	11.1
bleachers	398	42.0	21	9.5	blouse	309	60.3	9	44.4
bleed	381	55.4	6	33.3	blow	291	52.6	5	.0
blend	378	42.6	13	30.8	blower	377	44.0	20	25.0
bless	362	50.6	16	12.5	blowout	381	48.8	6	33.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
blubber	400	23.5	12	8.3	boil	362	52.8	16	37.5
bluc	320	83.8	9	55.6	boiler	400	41.8	12	41.7
bluebell	314	31.5	13	23.1	bold	369	23.3	13	23.1
blueberry	381	65.1	6	33.3	boldness	373	26.0	14	14.3
bluebird	369	57.2	13	7.7	bolt	394	33.8	16	56.3
bluejay	302	70.5	12	58.3	bolt	366	18.0	17	23.5
blueprint	396	24.0	19	10.5	bomb	380	48.2	13	30.8
bluff	397	29.7	16	37.5	bombard	311	41.2	11	36.4
bluff	376	36.2	16	25.0	bomber	383	45.4	22	27.3
bluish	369	30.6	20	15.0	bond	371	38.4	16	25.0
blunder	380	30.0	13	15.4	bonfire	354	42.9	12	25.0
blunt	367	28.3	16	12.5	bonnet	381	36.5	6	16.7
blur	376	28.7	19	15.8	bonus	374	36.1	17	29.4
blur	296	35.1	10	20.0	bony	307	29.3	8	50.0
blush	377	32.4	20	25.0	book	319	72.7	12	33.3
boat	378	32.0	13	23.1	bookcase	377	28.1	15	20.0
board	372	49.2	15	13.3	bookkeeper	399	43.1	11	36.4
boardinghouse	367	51.0	16	18.8	bookkeeping	371	41.8	16	25.0
boast	378	35.4	13	7.7	booklet	366	27.0	17	23.5
boastful	371	32.3	16	31.3	bookrack	381	67.2	6	50.0
boat	399	72.2	11	54.5	bookseller	307	55.0	8	25.0
boating	390	58.7	17	35.3	bookshelf	400	50.0	12	33.3
bob	371	24.3	16	18.8	boomerang	394	32.7	16	50.0
bobcat	311	62.7	11	27.3	boost	381	20.7	6	16.7
bobolink	358	31.3	21	28.6	boot	347	72.6	12	58.3
body	400	56.0	12	25.0	booth	302	26.2	12	16.7
bodyguard	369	41.5	20	20.0	border	319	25.7	12	16.7

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
bore	355	26.2	17	35.3	boy	364	64.3	14	14.3
bore	320	24.1	9	22.2	boyish	379	44.6	5	60.0
born	340	46.8	12	25.0	brace	376	26.3	16	25.0
borrow	400	43.3	12	33.3	brace	313	39.6	13	15.4
boss	397	52.1	13	23.1	bracelet	400	39.8	12	41.7
both	376	55.9	16	31.3	bracket	376	24.2	16	50.0
bother	340	48.2	12	16.7	brag	384	31.5	18	16.7
bothersome	364	26.9	14	7.1	braid	377	37.9	15	20.0
bottle	320	67.2	7	57.1	brain	394	42.4	16	31.3
bottom	377	50.7	15	33.3	brake	355	51.5	17	41.2
bottomless	340	40.6	12	33.3					
bough	364	28.6	16	37.5	bran	354	34.5	17	11.8
boulder	340	20.0	12	33.3	branch	404	47.0	13	7.7
boulevard	377	25.5	20	10.0	branch	341	26.7	12	41.7
bounce	397	44.8	16	43.8	brand	355	30.1	17	35.3
boundary	384	41.4	18	38.9	brand	296	32.1	10	50.0
boundless	397	36.3	16	31.3	brandy	366	22.1	17	5.9
bouquet	383	50.1	22	22.7	brass	378	40.5	13	38.5
bow	376	27.4	16	18.8	brat	354	29.4	17	23.5
bow	309	41.1	9	11.1	bravery	371	32.9	12	.0
bowl	397	58.7	13	15.4					
bowlegged	296	26.4	10	30.0	brawl	400	34.3	12	25.0
bowling	400	65.8	12	41.7	bread	302	74.5	12	41.7
box	320	59.7	7	28.6	break	390	35.1	17	29.4
boxcar	364	43.4	16	25.0	break	354	33.1	17	11.8
boxer	397	38.8	16	50.0					
boxer	378	37.8	12	16.7					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
breakable	340	44.1	12	16.7	brilliant	309	29.1	9	44.4
breakdown	404	29.7	13	7.7	brim	320	25.9	9	33.3
breakfast	398	54.8	16	18.8	bring	296	62.5	10	30.0
breast	302	46.0	12	33.3	brisk	291	27.1	5	.0
breach	354	51.7	12	25.0	bristle	364	27.2	16	18.8
breath	371	50.1	16	6.3	broad	380	35.0	13	30.8
branchless	309	63.8	9	44.4	broadcast	358	24.3	21	28.6
bred	376	32.7	16	25.0	broader	366	24.3	17	17.6
breches	354	22.3	17	11.8	broil	397	41.1	16	31.3
breed	380	28.7	13	7.7	broiler	369	25.7	20	5.0
breeding	381	31.8	6	16.7	broke	347	41.8	12	33.3
brezo	358	47.5	15	26.7	broker	376	25.5	16	18.8
brezy	404	47.3	13	53.8	bronchitis	379	40.6	5	40.0
brlar	354	18.9	17	29.4	bronz	332	24.1	10	30.0
brlbo	366	27.3	17	35.3	brook	398	42.2	21	9.5
brick	400	61.8	12	41.7	broom	375	61.3	15	46.7
bride	374	48.9	17	17.6	broomstick	371	45.8	15	26.7
bridegroom	367	46.0	16	18.8	broch	311	22.2	11	9.1
bridemaids	320	40.3	7	14.3	brother	404	23.5	13	7.7
bridge	384	51.6	18	22.2	brotherly	369	59.9	13	15.4
bridle	398	32.9	21	23.8	brown	395	85.3	16	62.5
brief	314	28.3	13	7.7	browns	366	70.2	17	29.4
bright	384	61.5	18	55.6	browns	378	25.4	14	25.0
brighten	400	53.3	12	58.3	bruise	398	33.4	21	28.6
brightness	376	59.6	23	26.1	brunette	302	35.1	12	25.0
brilliance	332	47.3	10	30.0					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
brush	302	59.3	12	25.0	bull	358	55.0	21	38.1
brutal	381	29.1	6	16.7	bulldog	399	39.1	11	18.2
brutality	396	34.3	19	42.1	bullet	380	44.2	13	15.4
brute	400	12.0	12	25.0	bulletin	309	43.4	9	22.2
bubble	372	31.5	15	33.3	bullfrog	372	39.5	15	26.7
buck	395	23.0	16	25.0	bully	366	35.2	17	23.5
buck	375	38.9	15	26.7	bun	369	45.8	20	30.0
bucket	383	43.9	21	23.8	bumblebee	320	39.4	7	14.3
buckle	354	22.3	17	17.6	bump	376	44.9	23	4.3
buckshot	366	47.5	17	11.8	bumper	369	59.9	13	30.8
buckskin	375	54.7	15	6.7	bumper	332	14.5	10	30.0
bucksteak	397	39.5	16	31.3	bun	296	45.9	10	40.0
bud	400	44.0	12	50.0	bunch	358	32.1	21	23.8
buddy	381	29.7	6	.0	bundle	395	42.3	16	43.8
budge	376	28.2	16	12.5	bungalow	311	24.4	11	.0
budget	398	32.7	16	12.5	bunton	410	18.8	24	16.7
buffalo	376	47.6	19	15.8	bunk	354	29.4	17	23.5
bug	380	52.6	13	7.7	bunny	358	81.0	21	57.1
buggy	376	35.6	16	18.8	bunt	366	27.9	17	29.4
bugle	332	48.5	10	10.0	busy	376	34.0	23	8.7
bulld	371	50.9	14	21.4	burden	320	23.4	7	14.3
bulldoz	302	39.4	12	16.7	burdensome	404	19.3	13	7.7
building	376	66.9	16	25.0	burden	402	14.7	18	16.7
bulb	358	27.7	21	19.0	bureau	340	31.5	12	16.7
bulge	384	29.9	18	16.7	burglar	320	27.5	9	22.2
bulky	354	18.1	17	5.9	burglary	410	36.6	24	50.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
burial	360	34.4	16	25.0	buy	381	55.4	6	16.7
burlap	396	31.3	19	26.3	buyer	355	47.6	17	23.5
burn	340	65.9	12	25.0	burnard	358	27.1	15	13.3
burner	320	38.1	7	57.1	busser	373	39.7	14	28.6
burro	404	49.8	13	30.8	by	309	43.4	9	33.3
burrow	381	22.0	6	.0	bygone	366	36.6	17	17.6
burrow	380	39.5	13	30.8	bylander	308	21.8	8	12.5
burret	377	40.3	20	40.0					
bury	371	22.9	12	25.0					
bus	376	56.1	16	31.3					
bush	404	40.6	13	30.8					
bushel	396	32.8	19	31.6					
bushy	319	49.2	12	25.0					
busily	360	45.0	16	25.0					
business	332	49.4	10	20.0					
buscle	347	40.6	12	16.7					
busy	371	65.0	16	12.5					
but	371	32.9	12	8.3					
butcher	396	37.9	19	26.3					
butler	378	31.7	13	15.4					
butte	399	24.8	11	18.2					
butc	404	21.8	13	38.5					
butter	396	55.8	19	21.1					
buttercup	371	20.8	12	16.7					
butterfly	380	57.6	13	23.1					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
cab	398	44.7	21	19.0	canere	377	61.5	20	15.0
cab	347	55.9	12	41.7	camouflage	402	24.4	18	16.7
cabbage	371	71.2	16	37.5	camp	375	58.9	15	26.7
cablin	313	61.0	13	46.2	campaign	371	31.0	12	25.0
cablnet	374	39.3	18	27.8	campfire	374	30.5	18	16.7
cablnet	397	34.0	16	31.3	campus	375	57.1	15	40.0
cable	313	39.0	13	38.5	can	402	34.1	18	11.1
cablegram	377	41.1	20	25.0	canal	400	46.8	12	25.0
caboose	362	34.3	16	18.8	canary	307	36.5	14	28.6
cactus	374	40.1	18	22.2	cancel	371	39.9	16	37.5
cadet	308	25.0	8	25.0	cancer	302	39.4	12	33.3
cafe	314	49.0	13	23.1	candidacy	343	29.7	18	22.2
cafeteria	358	48.3	21	47.6	candidate	371	39.6	15	6.7
caffeine	320	22.8	7	.0	candle	296	43.6	10	20.0
cage	371	43.9	12	25.0	candle	379	50.9	5	40.0
calcium	363	29.8	13	46.2	candlestick	367	46.3	16	25.0
calculate	398	39.7	16	18.8	candy	395	59.2	16	31.3
calendar	377	51.2	20	15.0	cane	363	43.0	13	23.1
calf	383	68.4	15	53.3	cannery	371	33.4	12	33.3
call	379	49.6	5	.0	cannibal	376	30.3	16	18.8
caller	358	42.2	21	23.8	cannon	365	37.8	14	35.7
calling	355	35.8	17	17.6	canoe	376	54.3	23	17.4
callous	340	17.6	12	8.3	canteen	390	32.3	17	17.6
calm	311	45.0	11	27.3	canvas	305	29.2	13	7.7
camel	366	71.3	17	47.1	canyon	371	43.7	15	20.0
					cap	367	78.2	16	37.5

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
capable	369	32.0	13	15.4	cafalval	358	36.3	21	33.3
cape	398	27.6	16	25.0	carol	377	40.1	15	53.3
cape	374	37.7	17	41.2	carpenter	404	47.5	13	30.8
capital	376	49.7	23	17.4	carpet	296	36.1	10	40.0
capital	396	44.1	16	12.5	carriage	358	42.5	15	13.3
captain	362	51.4	16	37.5	carrier	390	37.7	17	11.8
captive	400	33.0	12	16.7	carrot	305	66.2	13	15.4
captivity	366	32.5	17	.0					
capsule	364	25.5	16	25.0	cart	364	46.7	16	43.8
capture	308	32.5	8	12.5	carton	380	32.1	13	30.8
car	308	61.7	8	37.5	cartoon	358	45.5	15	20.0
carmel	395	38.5	16	31.3	cartoonist	374	43.3	18	11.1
caravan	376	42.8	23	34.8	cartridge	399	40.1	11	36.4
carbon	374	37.4	14	21.4	carve	371	37.5	16	37.5
card	377	60.2	20	20.0	carving	311	36.3	11	18.2
cardboard	377	53.6	15	26.7	case	374	25.4	18	16.7
cardinal	398	44.2	16	25.0	case	358	49.2	21	47.6
cardinal	381	49.1	6	33.3	cash	371	53.1	16	31.3
care	358	47.5	21	52.4	cashier	366	50.3	17	29.4
career	381	45.1	6	16.7	cashmere	390	16.4	17	11.8
careful	291	33.3	5	20.0	cash	371	33.7	15	6.7
careless	376	39.9	16	25.0	cask	371	43.4	15	20.0
caretaker	375	51.5	15	40.0	casseroles	390	27.4	17	17.6
cargo	396	35.4	19	21.1	castle	358	48.3	21	38.1
carnation	395	29.1	16	37.5	cat	366	70.5	17	41.2
					catalogue	378	26.7	12	33.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
catbird	398	40.2	21	23.8	cemetry	366	35.8	17	29.4
catch	360	54.4	16	12.5	cent	358	61.5	15	40.0
catcher	400	49.3	12	25.0	center	358	39.7	15	46.7
catfish	307	65.8	14	42.9	central	371	39.4	15	6.7
cathedral	371	43.1	12	16.7	century	360	37.8	16	18.8
cattle	383	58.7	21	33.3	cereal	354	51.1	17	29.4
cauliflower	390	51.8	17	47.1	ceremony	366	48.9	17	35.3
cause	390	41.0	17	23.5	certain	355	33.8	17	17.6
caution	382	43.5	17	17.6	certainly	379	38.8	5	40.0
cautious	332	35.5	10	10.0	certainty	354	34.5	17	23.5
cavalry	307	36.2	14	21.4	certificate	395	31.9	16	31.3
cave	309	41.1	9	22.2	chain	365	37.0	14	28.6
cavern	305	54.8	13	23.1	chair	296	53.0	10	20.0
cavity	332	27.7	10	20.0	chairmen	319	27.9	12	16.7
cease	384	29.4	18	33.3	challenge	380	21.3	13	53.8
cedar	398	23.6	16	25.0	challenger	404	41.1	13	7.7
celling	347	39.2	12	25.0	chamber	366	19.1	17	17.6
celebrate	360	33.9	16	12.5	champion	307	47.2	14	21.4
celebration	358	44.1	21	47.6	championship	354	47.5	12	16.7
celebrity	358	43.6	15	20.0	chance	395	26.8	16	37.5
celery	395	60.5	16	50.0	change	379	51.2	5	.0
cell	366	35.5	17	5.9	change	314	55.7	13	30.8
cell	374	26.7	17	17.6	changeable	355	35.5	17	35.3
cellar	307	30.3	14	21.4	channel	383	23.2	15	6.7
cello	374	29.9	17	17.6	chant	307	17.9	14	14.3
cellophane	364	29.1	14	28.6	chap	402	18.9	18	27.8
					chap	307	25.4	8	12.5

WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%
chopel	395	32.7	16	18.8
chaps	380	20.5	13	7.7
chapter	398	42.7	21	38.1
character	369	28.7	20	25.0
charcoal	395	40.3	16	18.8
charge	305	38.0	13	15.4
charger	380	27.6	13	23.1
charlot	372	31.7	15	20.0
charity	376	18.4	23	4.3
charm	378	25.4	13	15.4
charming	309	38.2	9	22.2
chart	369	40.4	20	30.0
chase	314	50.0	13	30.8
chat	372	30.1	15	40.0
chatter	380	31.8	13	23.1
chauffeur	390	26.7	17	17.6
cheap	378	40.2	13	15.4
cheapened	400	40.8	12	25.0
check	364	48.9	16	37.5
check	381	19.2	6	.0
checked	397	31.0	13	23.1
checkers	374	46.3	18	16.7
check	364	38.7	16	18.8
cheer	398	35.4	16	6.3
cheerful	366	45.1	17	23.5
cheery	404	32.7	13	15.4
cheese	305	70.2	13	30.8
chef	376	45.7	19	52.6
chemical	365	39.2	14	42.9
chemist	398	41.2	16	12.5
chemistry	375	52.5	15	26.7
cherry	354	72.9	17	29.4
chess	398	39.4	21	28.6
chest	376	50.0	16	37.5
chestnut	380	31.3	13	23.1
chev	364	53.8	16	31.3
chick	380	44.7	13	15.4
chickadee	373	57.9	14	28.6
chicken	367	68.4	16	12.5
chief	354	32.8	12	16.7
chieftain	376	39.1	16	18.8
child	366	68.9	17	29.4
childbirth	378	30.4	12	33.3
childhood	362	31.8	16	18.8
childish	381	41.5	6	16.7
chill	371	39.1	16	18.8
chilly	404	45.0	13	46.2
chime	377	22.5	15	26.7
chimpanzee	383	43.3	21	19.0
china	366	37.2	17	29.4
chins	373	32.4	14	14.3
chip	369	41.2	20	10.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
chipmunk	364	56.9	16	25.0	clinch	377	19.4	15	26.7
chisel	371	38.0	16	25.0	clindor	371	23.7	12	16.7
chocolate	376	67.8	16	43.8	cinnamon	378	47.6	12	25.0
choice	320	26.6	7	.0	circle	395	58.5	16	37.5
choir	320	41.3	7	14.3	circular	302	37.4	12	25.0
choke	302	32.8	12	16.7	circulation	358	43.0	15	46.7
chose	354	43.2	17	11.8	circulatory	307	43.0	8	12.5
chop	402	44.3	18	44.4	circumstance	320	34.4	7	28.6
chop	313	50.2	13	38.5	creus	369	64.2	20	25.0
chord	400	29.8	12	16.7	citizenship	383	28.2	22	9.1
chose	400	27.8	12	41.7	clerus	358	27.7	21	23.8
chorus	320	36.6	9	33.3	clty	398	61.6	16	12.5
chowder	396	23.7	15	31.6	clvics	395	39.7	16	25.0
christian	380	27.1	13	30.8	clvll	400	47.0	12	33.3
chrysanthemum	347	28.5	12	50.0	civilization	374	36.9	17	35.3
chubby	374	32.6	17	29.4	civilize	358	37.7	15	20.0
chum	376	28.7	19	21.1	clsta	375	30.9	15	33.3
chunk	332	30.1	10	40.0	clss	340	32.6	12	16.7
church	354	69.2	17	35.3	clmp	380	50.5	13	30.8
churchman	380	57.1	13	7.7	clarinet	307	33.2	14	35.7
churchyard	381	49.1	6	16.7	clcop	377	35.0	15	33.3
churn	376	35.9	19	15.8	clase	360	57.2	16	31.3
churn	402	31.8	18	33.3	classc	371	27.5	15	13.3
chute	380	28.2	13	.0	classcal	347	40.1	12	33.3
cider	397	43.6	16	56.3	classification	397	39.8	13	46.2
cigar	358	50.3	21	23.8	classfy	377	37.1	15	33.3
cigarette	376	55.9	23	17.4					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
classmate	381	51.4	6	16.7	close	373	40.5	14	14.3
classroom	355	74.6	17	29.4	closeness	395	26.6	16	18.8
claw	367	40.6	16	31.3	closet	369	57.5	13	38.5
clay	373	33.5	14	42.9	cloth	371	52.8	12	16.7
clean	381	51.7	6	33.3	clothe	369	73.2	13	23.1
cleanliness	400	42.0	12	16.7	clothes	398	57.0	16	25.0
cleansed	364	47.5	14	21.4	cloud	374	66.0	17	41.2
clear	378	62.4	12	41.7	cloudburst	367	49.0	16	12.5
clearance	313	27.2	13	7.7	cloudless	371	52.6	16	31.3
clench	364	26.9	16	18.8	cloudy	360	45.8	16	12.5
clerk	382	40.3	17	11.8	clove	400	29.8	12	25.0
clever	371	24.0	12	8.3	clover	340	32.4	14	8.3
cleverness	340	30.9	12	50.0	clown	364	70.3	14	50.0
cliff	369	34.1	13	30.8	club	364	22.3	16	.0
climate	320	40.0	13	28.6	club	379	52.0	5	60.0
climb	373	56.0	14	42.9	clubhouse	366	44.5	17	23.5
clinch	383	26.9	21	14.3	clue	376	35.9	16	37.5
cling	378	25.7	12	25.0	clump	377	36.9	15	20.0
clinic	380	36.1	13	23.1	clump	377	32.9	15	40.0
clip	380	37.1	13	38.5	clumsy	378	34.4	13	38.5
clipper	381	26.8	6	33.3	cluster	377	27.6	15	.0
clipping	400	36.8	12	41.7	clutch	376	40.2	23	8.7
clippers	354	36.4	12	16.7	coach	377	34.2	20	5.0
cloak	371	20.8	12	16.7	coach	364	39.0	16	37.5
clock	354	78.8	12	50.0	coachman	320	46.3	9	11.1
clockwise	340	42.4	12	41.7	coal	340	44.1	12	16.7
clod	360	28.1	16	18.8					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
coarse	371	32.9	15	20.0	collapse	371	21.8	12	16.7
coast	377	45.6	15	40.0	collar	397	48.6	13	15.4
coastal	381	41.7	6	16.7	collect	371	39.9	16	18.8
coat	374	73.8	17	58.8	collection	373	44.2	14	35.7
coating	367	24.5	16	31.3	collector	354	49.4	17	47.1
coax	373	32.2	14	21.4	college	373	62.7	14	28.6
cob	311	40.8	11	18.2	collie	373	49.3	14	14.3
cobbler	369	32.8	13	15.4	collision	369	30.1	13	7.7
cobblestone	340	35.9	12	8.3	colonel	355	29.0	17	5.9
cobra	379	30.9	5	20.0	colonial	378	41.0	13	23.1
cobweb	366	44.0	17	41.2	colonist	311	37.6	11	9.1
cock	369	31.7	13	46.2	colony	381	42.8	6	16.7
cockpit	400	32.8	12	25.0	color	397	72.5	13	23.1
cockroach	378	30.7	13	7.7	colored	364	65.1	16	25.0
cocky	374	34.5	18	11.1	colorful	374	55.1	18	11.1
cocoa	410	65.1	24	16.7	colorless	398	26.1	21	.0
coconut	354	53.7	17	35.3	colt	313	58.8	13	38.5
code	366	35.5	17	5.9	column	364	37.1	16	12.5
codfish	364	49.7	16	50.0	column	371	26.1	14	41.7
coffee	320	74.4	9	22.2	columnist	320	30.9	7	28.6
coffin	371	32.1	14	21.4	comb	341	70.1	12	58.3
coin	373	62.7	14	28.6	combat	343	58.3	18	33.3
coil	380	20.3	13	7.7	combback	364	50	16	18.8
coko	360	41.1	16	31.3	combination	382	31.4	17	.0
cold	376	59.3	16	43.8	combine	373	35.7	14	35.7
colossal	382	30.9	17	23.5	combine	397	31.0	13	53.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
come	404	52.0	13	15.4	communism	384	49.0	18	44.4
comedian	355	30.4	17	.0	community	377	60.5	15	46.7
comedy	308	39.3	8	25.0	compact	354	29.4	17	11.8
comfort	332	25.0	10	40.0	companion	402	28.4	18	33.3
comfortable	374	54.0	17	29.4	companionship	396	44.7	19	21.1
comforter	364	23.9	16	12.5	company	399	51.9	11	45.5
comforter	307	26.1	14	.0	compare	354	39.3	17	29.4
comic	320	42.5	7	.0	compare	399	35.8	11	.0
comical	307	29.3	14	7.1	comparison	358	36.9	21	33.3
coming	369	40.9	20	20.0	compass	381	43.3	6	.0
comma	367	51.8	16	12.5	complain	381	39.1	6	.0
command	364	28.6	14	21.4	complaint	296	31.4	10	10.0
commander	402	34.3	18	5.6	complete	364	35.4	14	.0
commandment	354	44.9	17	23.5	completion	383	36.6	22	31.8
commence	398	25.4	16	6.3	complexion	383	35.0	22	13.6
comment	366	29.0	17	35.3	complicate	383	39.7	22	22.7
commerce	378	20.6	12	8.3	complication	383	32.4	22	9.1
commercial	371	36.4	14	.0	compliment	374	17.6	14	42.9
commercial	332	38.6	10	30.0	compose	360	32.2	16	31.3
commission	309	39.2	9	11.1	composer	397	29.7	16	18.8
commissioner	376	47.1	23	13.0	composition	377	25.5	20	20.0
committee	307	29.3	14	21.4	compound	373	37.5	14	35.7
common	366	26.2	17	11.8	compress	332	32.2	10	30.0
commotion	366	47.0	17	29.4	comrade	377	22.0	15	33.3
communicate	402	44.8	18	38.9	conceal	371	14.6	15	13.3
communication	371	49.1	12	66.7					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
cancelled	340	24.7	12	25.0	congratulate	382	35.3	17	17.6
concentrate	363	39.4	13	53.8	congregate	381	29.1	6	16.7
concentration	319	42.3	12	25.0	congregation	371	43.9	16	18.8
concern	311	38.3	11	36.4	congress	308	51.9	8]	37.5
concerning	398	21.6	16	12.5	connect	364	34.6	16	25.0
concert	398	39.2	21	19.0	connection	291	18.6	5	.0
conclude	347	34.0	12	25.0	connective	302	31.5	12	58.3
conclude	313	22.7	13	30.8	conquer	307	27.4	14	14.3
conclusion	319	42.0	12	16.7	conqueror	402	26.9	18	16.7
concrete	355	37.5	17	29.4	conscience	369	29.8	20	15.0
condemn	396	28.0	19	26.3	consent	384	26.8	18	11.1
condemnation	371	45.3	15	33.3	consider	398	25.1	21	4.8
condition	364	19.5	16	6.3	considerate	77	39.8	15	20.0
conduct	340	25.6	12	.0	consideration	374	18.4	17	17.6
conduct	302	31.1	12	8.3	consist	377	28.6	15	26.7
conductor	374	31.8	14	14.3	constable	395	28.4	16	31.3
conductor	340	30.6	12	25.0	constant	372	22.0	15	13.3
conference	369	38.2	20	5.0	constitution	402	38.1	18	22.2
confess	394	36.0	16	37.5	constitutional	384	30.7	12	11.1
confession	377	36.3	20	20.0	construct	364	19.0	16	18.8
confide	377	31.0	20	15.0	construction	307	28.7	14	14.3
confidence	381	28.3	6	.0	consult	354	22.9	12	.0
confident	376	14.1	16	12.5	contact	371	46.4	15	40.0
confidential	381	39.1	6	16.7	contains	371	29.4	14	26.6
confuse	354	40.1	12	41.7	container	376	43.6	13	23.1
confusion	383	30.3	22	9.1	content	374	32.9	17	35.3
					contented	372	36.0	15	20.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
contentment	354	48.9	17	29.4	coolness	309	32.7	9	11.1
contents	362	27.3	16	12.5	coop	366	39.1	17	29.4
contest	371	23.5	12	25.0	cooperate	296	34.8	10	40.0
continent	313	39.0	13	30.8	cooperation	343	49.9	18	33.3
continental	313	35.5	13	38.5	cop	343	42.3	18	27.8
continual	384	31.0	18	22.2	copper	343	46.1	18	16.7
continuation	377	27.1	20	25.0	copy	347	36.0	12	8.3
continue	354	27.4	17	11.8	coral	379	33.5	5	0
contract	371	30.2	15	20.0	cord	340	30.0	12	8.3
contractor	365	25.5	14	14.3	core	380	32.6	13	15.4
conductor	373	21.2	14	7.1	cork	371	33.2	15	13.3
contribution	402	16.4	18	27.8	corkscrew	371	34.8	15	13.3
contributor	376	21.3	16	12.5	corn	296	55.4	10	30.0
control	376	29.5	19	15.8	corner	395	44.6	16	37.5
convenient	363	15.2	13	23.1	cornet	383	33.2	15	13.3
convention	379	26.9	5	40.0	cornfield	296	33.1	10	30.0
convention	319	34.5	12	8.3	cornstalk	383	33.7	22	13.6
conversation	311	29.9	11	9.1	cornstarch	384	37.2	18	22.2
convertible	398	32.9	16	18.8	corporation	372	58.7	15	6.7
convert	366	39.3	17	23.5	corporal	364	42.6	16	18.8
conviction	360	37.8	16	18.8	corporation	369	38.2	13	23.1
convince	410	32.2	24	37.5	corps	371	32.3	12	41.7
cook	372	76.3	15	40.0	corpse	396	25.3	19	31.6
cookie	343	75.5	18	27.8	corpuscle	364	27.5	14	35.7
cool	343	43.7	18	33.3	corral	384	21.9	18	27.8
cooler	343	46.6	18	16.7	correct	311	48.2	11	27.3
					correction	404	36.9	13	15.4

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
corridor	354	23.4	17	35.3	court	396	27.5	19	26.3
cosmetic	354	29.9	17	23.5	court	307	36.5	14	14.3
cost	358	52.5	21	42.9	courteous	307	33.2		37.5
costly	404	38.1	13	30.8	courtesy	364	33.5	14	7.1
costume	341	56.9	12	41.7	courthouse	364	56.0	16	31.3
					courtyard	397	29.0	16	37.5
cot	376	32.2	16	18.8	cousin	381	60.4	6	50.0
cottage	376	41.2	16	18.8	cover	397	37.8	13	7.7
cottonwood	376	57.2	19	21.1	coverlet	308	38.6	8	37.5
couch	364	28.8	16	12.5	cow	373	76.7	14	28.6
council	381	36.5	6	16.7	coward	404	39.9	13	38.5
councilor	309	36.9	9	33.3	cowardly	382	42.7	17	17.6
count	380	51.1	13	46.2	covey	374	55.1	17	47.1
countar	381	22.6	6	..0	comblde	383	42.3	22	18.2
countarfelt	378	22.8	12	33.3	cowslip	383	20.6	15	33.3
countess	380	24.5	13	30.8	coyote	399	39.1	11	27.3
country	366	53.3	17	29.4	coky	395	31.1	16	25.0
countryside	404	29.5	13	23.1	crab	355	51.8	17	29.4
coupo	332	30.1	10	10.0	crack	307	38.4	8	12.5
couple	307	30.6	8	12.5	cracker	366	64.5	17	41.2
coupling	402	37.6	18	38.9	cradle	381	52.5	6	16.7
coupon	402	33.1	18	44.4	craft	376	43.9	23	26.1
courage	410	38.3	24	29.2	craft	320	24.4	7	14.3
courageous	369	34.7	20	10.0	craftman	371	48.2	15	13.3
course	384	23.7	18	22.2	crum	371	45.0	12	16.7
					crump	343	28.0	18	38.9
course	358	17.0	21	23.8	cranberry	375	46.7	15	33.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
crane	374	26.5	18	16.7	cripp	378	38.6	13	23.1
crane	397	22.2	13	30.8	criescross	320	48.1	9	77.8
crank	404	27.2	13	38.5	criticism	376	39.1	19	15.8
cranky	296	38.5	10	40.0	criticize	364	31.3	16	6.3
crate	309	31.7	9	44.4	crook	402	21.9	18	22.2
crater	364	32.1	16	12.5	crocodile	375	38.4	15	40.0
crawl	363	51.2	13	38.5	crocus	369	35.5	13	15.4
crayfish	369	62.6	20	45.0	crook	404	29.7	13	7.7
crayon	364	59.9	16	31.3	crooked	378	29.1	12	25.0
cray	398	57.3	16	18.8	crop	390	42.6	17	29.4
creak	390	36.9	17	11.8	crop	395	31.9	16	31.3
cream	355	73.0	17	41.2	cropping	320	52.8	7	85.7
creamy	305	54.8	13	7.7	crosspiece	311	31.5	11	9.1
crease	376	23.7	16	18.8	crossroads	307	40.4	8	12.5
create	296	28.4	10	20.0	crosswise	307	21.2	14	14.3
creation	302	33.8	12	25.0	crossword	302	58.3	12	41.7
creator	291	27.8	5	20.0	crutch	375	29.3	15	6.7
creature	319	34.2	12	.0	crow	354	47.7	17	11.8
credit	375	44.8	15	53.3	crow	398	65.8	21	28.6
creek	362	43.4	16	31.3	crowbar	307	28.0	14	21.4
creep	390	38.7	17	41.2	crowd	378	43.4	12	33.3
crew	373	29.5	14	35.7	crowded	354	28.2	17	17.6
crib	379	34.8	5	20.0	crowns	395	46.3	16	43.8
cribbet	380	40.3	13	23.1	crowns	384	18.0	18	.0
criss	384	31.5	18	11.1	crucifix	375	24.0	15	26.7
crissal	381	33.9	6	66.7	crucifixion	375	15.2	15	6.7
cripple	375	33.1	15	20.0					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
crucify	376	34.0	23	21.7	curb	363	29.8	13	38.5
cruel	369	35.8	13	15.4	curd	404	21.0	13	23.1
cruelty	383	32.1	21	14.3	curdle	366	27.6	17	5.9
cruise	371	27.2	15	20.0	cure	383	30.3	21	23.8
cruise	395	21.0	16	37.5	curiosity	376	33.5	16	56.3
crumb	395	29.6	16	12.5	curious	383	34.5	15	13.3
crumble	371	36.4	16	18.8	curl	375	57.3	15	20.0
crumple	378	47.6	12	16.7	curly	396	36.4	19	26.3
crush	377	48.5	15	46.7	current	373	22.8	14	21.4
crust	395	34.7	16	12.5	curse	354	22.6	17	11.8
crutch	395	26.3	16	31.3	curtain	371	36.9	12	25.0
cry	319	44.5	12	33.3	curve	375	41.1	15	26.7
crystal	343	33.5	18	5.6	cushion	375	39.2	15	33.3
cub	395	48.4	16	37.5	custom	375	26.9	15	20.0
cube	358	30.7	21	14.3	customer	395	43.0	16	43.8
cubic	376	33.8	16	18.8	cut	366	54.1	17	47.1
cucumber	366	37.4	17	11.8	cute	381	62.5	6	33.3
cuckoo	369	47.2	20	25.0	cutler	366	46.2	17	29.4
cuddle	404	34.7	13	23.1	cutworm	309	48.9	9	33.3
cuff	354	21.8	17	5.9	cycle	376	39.1	23	13.0
cultivate	377	24.9	20	25.0	cyclone	365	21.1	14	21.4
cunning	383	27.2	21	9.5	cymbal	296	19.3	10	40.0
cup	398	65.8	16	37.5	czar	343	25.4	18	27.8
cupboard	307	46.3	14	28.6					
cupful	305	40.0	13	7.7					
curb	383	36.8	15	26.7					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
dab	371	32.1	14	26.6	darken	364	37.1	16	25.0
dab	399	21.6	11	27.3	darkness	291	55.0	5	.0
daddy	376	75.8	16	43.8	dark	313	60.7	13	38.5
daffodil	397	28.2	16	31.3	darling	367	44.4	16	31.3
dagger	375	30.4	15	33.3	darn	398	28.9	16	18.8
daily	377	53.6	15	33.3	dart	369	34.4	20	20.0
dainty	378	40.7	13	38.5	dart	302	32.8	8	37.5
dairy	383	41.0	22	13.6	dash	395	22.5	16	43.8
daisy	313	52.4	13	53.8	dash	402	37.3	18	22.2
					date	358	34.9	15	6.7
					date	394	46.7	16	12.5
dam	376	48.9	23	30.4	daughter	397	57.2	16	37.5
damage	358	52.0	15	46.7	dawn	360	34.4	16	18.8
dame	332	25.6	10	20.0	day	374	64.7	17	17.6
damn	397	24.7	16	25.0	daybreak	374	43.0	17	35.3
damp	354	40.4	12	16.7	daydream	376	50.0	19	21.1
dampen	291	50.9	5	.0	daylight	305	62.3	13	23.1
dance	375	63.5	15	20.0	daze	302	33.1	12	16.7
dancer	367	52.0	16	37.5	dazzle	355	32.4	17	29.4
dandelion	382	33.0	17	41.2	dead	404	54.5	13	7.7
dandy	354	26.3	12	25.0	deaden	309	43.4	9	55.6
danger	291	44.7	5	40.0	deadline	366	29.5	17	11.8
dangerous	390	49.2	17	29.4	deadly	374	44.9	14	7.1
dangle	374	28.1	18	16.7	deaf	376	63.3	23	39.1
date	371	26.4	12	33.3	deafen	376	54.3	23	17.4
daredevil	402	24.4	18	33.3	deafening	332	38.3	10	40.0
darling	365	27.7	14	21.4					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
deafness	397	56.4	16	31.3	deduct	320	25.3	9	55.6
deal	378	39.4	12	50.0	deed	369	30.9	13	.0
deal	296	28.4	10	20.0	deepen	398	37.2	21	23.8
dealer	396	42.2	19	15.8	deer	390	68.7	17	23.5
dean	343	26.8	18	33.3	defeat	398	29.9	21	23.8
dear	372	52.2	15	13.3	defend	371	31.8	12	8.3
death	366	50.3	17	.0	defender	358	41.6	15	20.0
deathless	376	33.2	16	12.5	defenseless	367	41.1	16	18.8
debate	355	40.8	17	23.5	defiance	397	41.3	16	25.0
debt	397	32.5	16	31.3	defiant	372	27.7	15	33.3
debtor	398	30.2	16	12.5	define	377	30.0	20	25.0
decay	395	23.3	16	18.8	definite	382	17.5	17	11.8
deceive	399	18.3	11	27.3	definition	382	32.7	17	17.6
December	395	79.0	16	56.3	deflate	399	26.1	11	45.5
decant	343	29.2	18	11.1	defrost	371	32.6	12	33.3
decide	384	43.5	18	11.1	degree	374	49.2	14	14.3
decimal	291	24.7	5	.0	delay	371	30.5	14	35.7
decision	358	41.3	21	52.4	delegate	354	33.1	17	29.4
deck	400	20.8	12	41.7	delegation	364	33.0	14	21.4
deck	332	35.8	10	40.0	deliberate	376	25.5	23	4.3
declaration	374	38.8	14	42.9	deliberately	374	14.7	18	16.7
declare	309	25.6	9	11.1	delicate	314	25.2	13	23.1
decorate	313	33.9	13	15.4	delicious	364	37.4	16	18.8
decoration	378	18.0	13	.0	delight	378	43.9	13	15.4
decorative	365	43.3	14	28.6	delightful	377	34.2	20	25.0
decrease	399	24.3	11	27.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
deliver	375	32.0	15	40.0	depress	314	22.3	13	15.4
delivery	374	31.8	14	21.4	depression	313	40.9	13	38.5
delta	384	30.7	18	16.7	deprive	311	30.5	11	18.2
demand	371	24.8	14	21.4	depth	360	33.6	16	31.3
democratic	355	33.2	17	23.5	deputy	355	19.2	17	17.6
democracy	371	40.7	14	7.1	derby	374	12.3	18	27.8
demolish	396	36.4	19	31.6	descend	320	23.1	9	33.3
demonstrate	354	24.3	12	33.3	descent	395	21.3	16	18.8
demonstration	358	17.9	21	19.0	describe	375	41.1	15	33.3
den	372	36.3	15	33.3	description	307	39.4	8	50.0
denominator	291	34.0	5	.0	desert	410	28.0	24	25.0
dense	313	22.4	13	.0	deserve	375	33.9	15	33.3
dont	311	22.5	11	18.2	design	376	36.2	23	30.4
dental	398	44.5	16	25.0	desirable	383	29.0	15	26.7
dentist	302	72.2	12	33.3	desire	390	26.7	17	17.6
deny	364	28.8	14	21.4	desk	365	75.9	14	21.4
deodorant	355	37.5	17	35.3	despair	383	25.6	21	19.0
depart	314	22.3	13	7.7	desperate	398	22.6	16	18.8
departure	369	22.0	20	5.0	despite	378	24.1	12	16.7
depend	378	36.5	13	23.1	desert	383	42.8	22	22.7
dependable	311	32.8	11	9.1	destination	375	21.6	15	13.3
dependence	307	30.0	8	12.5	destroy	307	41.4	8	62.5
dependent	381	31.2	6	.0	destroyer	311	36.7	11	45.5
deposit	341	29.0	12	25.0	destruction	341	24.9	12	16.7
deposit	332	24.4	10	10.0	destructive	383	39.2	15	33.3
depot	377	21.5	15	13.3	detain	397	30.2	16	50.0
					detective	319	40.8	12	33.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
determination	320	28.4	9	11.1	dig	365	52.6	14	50.0
determine	396	41.4	19	36.8	digest	314	31.5	13	7.7
determined	377	30.2	15	13.3	digestion	398	32.7	16	18.8
detour	314	40.1	13	7.7	digestive	398	43.7	21	23.8
develop	390	26.9	17	35.3	digified	363	32.5	13	30.8
development	365	37.0	14	14.3	dignity	399	18.8	11	9.1
devil	362	32.6	16	25.0	ditke	395	31.1	16	31.3
devilish	379	33.0	5	20.0	dila	372	39.5	15	26.7
davy	374	43.3	14	21.4	dila	376	66.5	19	.0
diagnose	375	27.7	15	26.7	dimension	305	25.2	13	15.4
diagram	320	27.5	7	.0	dimple	395	28.9	16	43.8
dial	365	31.5	14	21.4	diner	380	47.4	13	7.7
diameter	341	39.0	12	25.0	diner	365	48.2	14	7.1
diamond	313	42.5	13	46.2	dingy	402	37.6	18	16.7
diary	311	25.4	11	9.1	dinner	320	65.0	9	33.3
dictation	291	30.6	5	.0	dinosaur	313	48.6	13	23.1
dictator	366	23.2	17	23.5	dip	365	41.6	14	21.4
dictionary	365	58.4	14	57.1	diploma	399	32.1	11	36.4
dile	354	70.9	17	23.5	dipper	397	35.3	13	15.4
dilec	397	46.3	13	53.8	direct	394	34.0	16	25.0
dictician	371	31.8	15	13.3	direction	369	26.6	13	23.1
differ	390	35.9	17	23.5	directly	311	25.4	11	18.2
difference	383	55.1	21	52.4	director	376	39.1	23	8.7
different	399	53.1	11	36.4	diractory	366	42.1	17	11.8
differently	307	38.4	8	12.5	dirc	398	65.1	21	47.6
difficult	376	41.5	16	43.0	dirty	376	59.8	19	15.8
difficulty	378	32.3	13	7.7					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
disagree	397	34.3	13	23.1	disgust	397	40.3	16	43.8
disagreement	364	50.5	16	37.5	dish	365	66.3	14	21.4
disappear	374	31.0	14	35.7	dishonest	365	34.8	14	28.6
disappearance	384	25.8	18	5.6	dishonesty	311	26.4	11	27.3
disappoint	313	47.9	13	15.4	dishonor	381	33.9	6	33.3
disappointment	314	49.0	13	23.1	disinfect	320	50.6	9	66.7
disapproval	365	36.4	14	14.3	disinfectant	376	33.2	16	43.8
disapprove	365	36.7	14	35.7	dislike	399	43.6	11	18.2
disaster	320	33.8	9	22.2	dislike	383	25.3	15	20.0
discharge	397	20.7	13	23.1	dismiss	378	32.5	13	15.4
disciple	402	22.6	18	16.7	dismissal	378	41.8	12	25.0
discomfort	396	30.6	19	10.5	dismount	354	22.9	17	23.5
disconnect	378	38.4	12	25.0	disobedient	320	49.4	9	22.2
discontinue	410	32.2	24	45.8	disobey	383	41.3	15	13.3
discord	291	36.8	5	20.0	disorder	383	30.5	15	13.3
discourage	358	34.1	15	26.7	disorganization	313	32.9	13	30.8
discouragement	365	37.8	14	21.4	display	400	28.3	12	25.0
discourtesy	320	40.9	7	28.6	displease	307	38.8	14	21.4
discover	371	35.6	12	8.3	disposal	395	33.7	16	25.0
discovery	365	36.2	14	14.3	dispose	364	21.4	14	14.3
discuss	364	26.6	16	12.5	disposition	402	28.6	18	16.7
discussion	340	34.4	12	25.0	dispute	365	25.2	14	50.0
disease	398	45.5	16	18.8	disqualify	365	45.2	14	28.6
disgrace	376	30.1	16	18.8					
disgraceful	404	39.1	13	53.8					
disguise	314	21.0	13	30.8					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
disregard	397	38.3	16	43.8	disary	399	43.6	11	36.4
disrespect	307	43.6	8	12.5	do	358	46.6	15	.0
disrespectful	362	24.3	16	12.5	dock	307	37.5	14	21.4
disseminated	376	44.1	16	37.5	dodge	307	26.7	14	21.4
dissolve	307	32.6	14	28.6	dog	307	74.9	14	78.6
distance	309	35.9	9	33.3	dolly	410	26.3	24	45.8
distant	332	31.3	10	30.0	doll	373	75.6	14	14.3
distasteful	313	44.4	13	38.5	dollar	372	68.3	15	13.3
distinct	341	18.8	12	25.0	down	367	40.9	16	18.8
distinction	313	22.0	13	15.4	downs	307	38.1	14	21.4
distort	341	36.7	12	8.3	downs	383	19.3	15	6.7
distraction	378	43.4	12	16.7	doorknob	320	50.0	7	28.6
distress	383	30.3	15	20.0	doorstep	366	56.3	17	.0
distribution	383	41.0	15	40.0	doorway	371	38.0	14	7.1
district	378	30.7	12	16.7	dope	305	59.3	13	30.8
disturb	341	33.1	12	16.7	dormitory	374	21.1	14	28.6
	383	42.0	15	40.0	dose	302	51.7	12	8.3
					doc	302	48.7	12	33.3
ditch	307	36.8	14	14.3	double	302	40.7	12	8.3
dive	341	45.7	12	16.7	doubt	347	31.1	12	25.0
divide	341	44.6	12	8.3	doubtful	309	53.4	9	44.4
dividend	307	45.3	14	35.7	doughnut	383	55.1	22	4.5
divine	307	32.2	8	12.5					
divisor	366	42.9	17	23.5					
divorce	307	34.9	14	28.6					
disy	373	42.6	14	35.7					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
douse	309	18.1	9	22.2	draw	307	73.9	14	57.1
dove	307	46.6	14	35.7	drawbridge	363	33.9	13	38.5
down	347	49.0	12	25.0	drawer	309	48.2	9	44.4
downfall	302	60.9	12	16.7	drawing	398	73.6	21	28.6
downhearted	347	42.4	12	16.7	dread	397	41.3	16	18.8
					dreadful	302	37.1	12	50.0
					dream	302	63.6	12	25.0
downstairs	347	59.9	12	25.0					
downtown	307	41.4	8	25.0	drench	381	21.3	6	16.7
downwards	376	40.7	19	15.8	dress	358	71.5	15	6.7
downy	358	27.4	15	6.7	dresser	371	52.6	16	25.0
dose	320	28.1	9	53.3	dressmaker	309	49.8	9	22.2
dozen	343	49.6	18	22.2	dressy	378	29.1	13	15.4
draft	307	18.9	14	28.6	drior	302	49.0	12	33.3
draftsman	307	27.7	14	26.6					
drag	302	30.8	12	25.0	driftwood	374	36.1	14	50.0
dragon	371	42.9	14	21.4	drill	307	36.5	14	28.6
dragonfly	309	53.1	9	22.2	drink	320	49.7	7	42.9
drain	383	42.6	15	26.7	drinker	307	46.6	14	35.7
drainage	347	36.6	12	33.3	drip	302	54.0	12	41.7
drake	354	26.0	17	29.4	drive	398	53.8	21	28.6
drain	307	31.9	14	21.4	driver	374	58.3	18	11.1
dramatic	372	26.1	15	13.3	driveway	307	62.9	14	50.0
dramatist	296	24.0	10	10.0	drizzle	377	32.9	15	20.0
dramatize	314	34.1	13	38.5	droop	374	30.5	14	14.3
drope	313	31.3	13	23.1	drown	314	47.8	13	30.8
draperies	376	30.1	19	5.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
drowse	358	24.9	15	6.7	dusky	314	33.8	13	30.8
drowsy	366	30.6	17	29.4	dust	377	44.0	15	13.3
drum	365	42.7	14	21.4	duty	375	44.8	15	40.0
drummer	371	51.5	14	21.4	dwarf	320	41.3	7	28.6
drunkard	308	59.4	8	12.5	dwell	378	27.2	13	23.1
drunkenness	314	47.5	13	23.1	dweller	365	20.5	14	42.9
dry	398	64.3	16	31.3	dwelling	400	20.3	12	50.0
duchess	382	35.1	17	11.8	dye	369	41.5	13	23.1
duck	383	73.4	15	46.7	dying	376	38.0	23	13.0
duck	311	16.1	11	27.3	dynamic	379	46.7	5	.0
due	395	38.2	16	12.5					
due	314	35.7	13	15.4					
duel	381	26.5	6	33.3					
duet	307	16.9	14	35.7					
dugout	343	31.8	18	16.7					
duke	396	32.8	19	31.6					
dull	354	39.8	17	17.6					
dumb	399	31.3	11	45.5					
dump	320	45.6	9	44.4					
dupling	307	20.8	14	14.3					
dunce	381	41.7	6	16.7					
dungeon	397	20.9	13	38.5					
duplicate	369	27.6	13	23.1					
duplication	402	19.4	18	22.2					
during	307	40.7	14	14.3					
dusk	374	36.1	17	41.2					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Prac.	%	Prac.	%		Prac.	%	Prac.	%
each	371	55.8	15	26.7	earvedrop	398	16.8	16	12.5
eager	410	31.7	24	33.3	echo	341	36.1	12	16.7
eagerness	341	17.0	12	33.3	eclipse	376	31.4	23	21.7
eagle	365	65.5	14	7.1	ecclesiastical	381	18.9	6	16.7
ear	369	57.7	20	35.0	economise	398	20.9	16	25.0
earl	366	30.3	17	17.6	edge	371	28.8	12	8.3
early	305	46.9	13	23.1	editor	313	44.7	13	46.2
earn	395	41.8	16	31.3	educate	396	35.1	19	10.5
earnest	332	22.0	10	20.0	education	398	34.4	21	19.0
earnestness	374	46.8	18	27.8	educational	363	50.1	13	38.5
earring	404	31.4	13	15.4	educator	369	38.8	13	23.1
earth	381	59.3	6	33.3	eel	383	49.9	15	40.0
earthquake	305	15.7	13	15.4	effect	320	45.9	7	42.9
earthworm	354	48.3	17	23.5	effective	320	45.9	7	42.9
earthly	319	45.1	12	25.0	effort	358	32.7	15	28.6
earthquake	319	45.1	12	25.0	egg	313	36.7	13	15.4
earthworm	354	54.0	17	5.9	elbow	341	74.8	12	33.3
ease	402	29.6	18	27.8	elbow	371	66.3	15	46.7
easy	395	19.2	16	25.0	elbow	360	66.1	16	25.0
easyly	372	41.9	15	6.7	elbow	374	52.9	17	29.4
east	291	54.6	5	.0	elbow	332	35.8	10	10.0
eastern	396	50.3	19	15.8	elbow	397	33.2	16	18.8
easy	372	58.3	15	13.3	elbow	314	61.1	13	15.4
easygoing	376	23.9	23	17.4	elder	308	32.8	8	.0
eat	360	75.0	16	43.8	eldest	358	43.0	15	33.3
eatable	308	47.7	8	12.5	elderly	380	26.1	13	7.7
eaves	307	38.4	8	12.5	elect	296	38.5	10	50.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
election	373	38.6	14	.0	embroidery	399	32.6	11	18.2
elector	354	45.5	12	25.0	emerald	378	37.8	13	38.5
electric	397	57.4	16	31.3	emergency	320	45.6	9	33.3
electrical	395	62.5	16	43.8	emotional	332	37.3	10	20.0
electrician	379	50.9	5	.0	emperor	363	26.2	13	23.1
elegance	382	36.1	17	5.9	empire	296	34.1	10	30.0
elegant	381	28.9	6	50.0	employ	376	33.8	16	18.8
elementary	400	23.8	12	16.7	employee	314	43.3	13	.0
elephant	305	77.4	13	30.8	employer	320	33.8	9	22.2
elevate	376	37.0	23	21.7	employment	395	44.3	16	37.5
elevation	371	38.5	15	6.7	empress	398	21.1	16	12.5
elevator	383	54.8	22	22.7	emptiness	365	27.4	14	.0
elevon	390	64.6	17	52.9	empty	397	44.3	16	37.5
elf	404	33.2	13	30.8	enamel	374	15.5	18	16.7
eligible	296	26.0	10	10.0	enchant	360	26.7	16	31.3
elidinate	397	31.2	13	7.7	enchantment	313	24.9	13	30.8
elk	296	45.6	10	30.0	enclave	313	40.3	13	38.5
elm	377	38.5	15	40.0	enclose	395	40.0	16	18.8
elope	374	27.0	18	22.2	enclose	381	34.6	6	33.3
elopement	384	29.7	18	16.7	enclosure	397	20.4	16	25.0
eloquent	365	38.1	14	7.1	encourage	302	29.8	12	25.0
elope	374	44.7	18	16.7	encouragement	347	41.8	12	41.7
elostore	309	47.2	9	11.1	encyclopedia	358	34.6	21	33.3
embarrase	319	41.7	12	16.7	end	372	55.4	15	26.7
embarrassment	404	37.4	13	23.1	endanger	313	26.8	13	38.5
emblem	398	34.7	21	28.6	endless	296	36.8	10	20.0
embrace	396	26.8	19	21.1	endurance	395	37.7	16	6.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Pres.	%	Pres.	%		Pres.	%	Pres.	%
enemy	341	46.3	12	8.3	entertain	378	29.6	12	41.7
energetic	399	23.3	11	36.4	entertainment	371	38.3	14	14.3
energy	291	39.2	5	20.0	enthusiasm	369	41.2	13	15.4
enforce	360	28.6	16	12.5	enthusiast	360	40.8	16	50.0
engage	380	24.5	13	7.7	enthusiastic	366	53.8	17	35.3
engagement	383	46.2	15	33.3	entire	354	31.4	17	17.6
engine	396	57.1	19	31.6	entirely	366	42.6	17	17.6
engineer	397	44.1	13	15.4	entrance	390	40.5	17	29.4
engineering	383	39.4	15	26.7	entrust	363	29.5	13	7.7
English	398	59.0	21	23.8	entry	399	28.3	11	9.1
engrave	311	26.7	11	18.2	entry	314	25.2	13	15.4
engraving	372	31.5	15	26.7	envelope	394	40.1	16	31.3
enjoy	365	52.3	14	35.7	envy	363	34.2	13	30.8
enjoyable	371	37.5	14	7.1	equal	354	38.7	12	33.3
enjoyment	383	54.0	22	27.3	equally	383	36.0	21	19.0
enlarge	371	44.7	16	6.3	equator	369	49.9	20	35.0
enlargement	397	42.6	13	46.2	equip	383	27.7	15	20.0
enlist	320	29.4	7	85.7	equipment	366	30.1	17	29.4
enlistment	376	27.7	23	34.8	erase	334	48.2	10	30.0
enormous	296	27.0	10	50.0	errand	305	33.1	13	23.1
enough	341	37.2	12	25.0	error	347	33.1	12	25.0
enrage	378	36.2	12	33.3	erupt	397	38.0	13	38.5
enrich	382	32.5	17	29.4	eruption	378	46.3	12	8.3
enroll	354	33.3	12	33.3	escalator	390	38.2	17	5.9
enslave	308	39.3	8	50.0	escape	355	44.8	17	29.4
entangle	364	23.6	14	7.1	especial	355	38.9	17	29.4
enter	375	43.7	15	6.7					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
especially	397	44.3	13	30.8	everything	341	61.9	12	58.3
essay	397	35.0	13	23.1	everywhere	363	58.4	13	38.5
establish	302	27.2	12	41.7	evidence	364	22.0	16	31.3
establishment	397	49.1	13	38.5	evident	291	25.1	5	20.0
estate	360	37.8	16	31.3	evidently	410	20.5	24	8.3
estimate	398	36.7	21	23.8	evil	376	55.9	16	31.3
estimation	358	38.8	15	13.3	exact	365	29.3	14	7.1
eternal	355	41.7	17	11.8	examination	397	44.6	13	38.5
eternity	319	23.8	12	33.3	examine	367	31.6	16	18.8
ether	373	20.4	14	28.6	examiner	360	41.1	16	18.8
evaporate	390	43.3	17	41.2	example	364	48.9	14	21.4
evaporation	340	30.0	12	25.0	exceeding	383	29.0	21	23.8
eve	404	41.1	13	23.1	excellence	365	29.0	14	21.4
even	362	42.8	16	25.0	excellent	308	42.5	8	12.5
even	319	29.2	12	41.7	except	400	25.3	12	33.3
evening	363	57.7	21	33.3	exception	377	29.6	20	30.0
event	364	36.0	14	14.3	exceptional	308	24.0	8	12.5
eventful	354	36.2	17	35.3	exchange	291	67.8	5	20.0
ever	305	52.6	13	30.0	excitable	313	34.5	13	30.5
evergreen	399	53.4	11	9.1	excite	313	31.6	13	38.5
everlasting	399	41.1	11	9.1	exclaim	363	35.1	13	23.1
evermore	378	47.1	13	36.5	exclamation	500	22.4	13	7.7
every	371	62.8	16	37.5	excuse	308	40.3	8	25.0
everybody	291	55.7	5	.0	execute	366	23.5	17	23.5
everyday	369	42.5	13	15.4	exhaust	375	36.0	15	26.7
everyone	394	47.2	16	18.8	exhaustion	374	29.9	14	21.4

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
exhibit	375	35.7	15	33.3	express	308	20.8	8	25.0
exhibition	402	35.6	18	16.7	expression	373	30.8	14	21.4
exile	374	24.9	18	16.7	expressive	394	28.4	16	18.8
exist	354	20.1	17	29.4	extinguish	355	32.1	17	17.6
existence	371	21.8	12	16.7	extend	390	25.4	17	29.4
exit	404	52.2	13	15.4	extension	302	23.8	12	25.0
expand	410	46.8	24	16.7	extra	314	19.7	13	7.7
expansion	380	38.4	13	15.4	extract	384	22.4	18	16.7
expect	371	32.6	16	25.0	extraordinary	360	29.7	16	12.5
expectant	383	27.7	21	4.8	eye	400	25.0	12	50.0
expedition	364	48.9	14	42.9	eyeball	291	26.5	5	20.0
expel	395	24.1	16	37.5	eyebrow	383	63.2	21	28.6
expense	366	34.4	17	17.6	eyelash	366	40.4	17	5.9
expensive	365	31.0	14	21.4	eyesight	355	56.6	17	35.3
experience	398	44.5	21	19.0		309	43.4	9	33.3
experiment	308	31.2	8	25.0		376	53.7	23	39.1
expert	365	36.7	14	21.4					
expire	383	25.6	21	23.8					
explain	366	33.6	17	.0					
explanation	355	42.5	17	11.8					
explode	365	33.2	14	21.4					
explore	366	39.9	17	11.8					
explorer	363	41.3	13	46.2					
explosion	291	34.7	5	.0					
explosive	366	36.6	17	23.5					
export	296	32.8	10	.0					
expose	369	27.6	13	30.8					

	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
fable	343	23.9	18	16.7	fang	374	20.6	17	29.4
fabric	377	29.7	20	20.0	fantastic	366	28.1	17	23.5
faco	360	65.8	16	18.8	far	369	67.5	20	35.0
fact	354	41.2	12	8.3	faraway	307	62.2	14	64.3
fad	332	33.7	10	50.0	fare	354	32.2	17	17.6
fado	378	25.1	12	25.0	farwell	383	44.1	21	9.5
fail	378	41.3	12	16.7	farm	362	55.8	16	50.0
failure	354	33.1	17	35.3	farmer	402	66.2	18	27.8
faltness	402	41.5	18	33.3	farmhouse	383	53.5	22	18.2
fair	355	39.4	17	23.5	farmstead	369	37.7	13	.0
fairness	340	31.8	12	25.0	farther	402	45.0	18	16.7
fairy	395	41.0	16	18.8	farthest	374	32.1	18	27.8
fairyland	307	44.3	8	50.0	fascinate	375	30.7	15	33.3
falch	367	45.0	16	37.5	fascination	395	29.4	16	25.0
fateful	369	30.9	13	7.7	fashionable	374	38.0	14	21.4
fatefulness	383	26.1	22	9.1	fasc	367	52.6	16	25.0
fake	378	41.8	13	30.8	fasten	399	30.8	11	18.2
faker	383	34.7	15	26.7	fastening	367	35.4	16	31.3
fall	320	59.4	9	66.7	fat	382	60.5	17	29.4
false	363	59.0	13	46.2	fatal	366	29.2	17	11.8
falsehood	366	34.2	17	17.6	father	291	67.0	5	.0
fame	371	27.5	16	25.0	fatherland	309	40.5	9	14.1
familar	376	28.5	23	21.7	fatherly	347	57.6	12	58.3
family	380	71.6	13	46.2	fatty	377	35.5	15	20.0
famous	309	45.3	9	22.2	faucet	340	28.8	12	25.0
fan	360	31.9	16	6.3	faulc	307	50.2	14	35.7
fan	410	63.4	24	33.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Prac.	%	Prac.	%		Prac.	%	Prac.	%
fealtless	314	29.9	13	15.4	fern	395	30.6	16	50.0
fealty	400	43.5	12	16.7	ferocious	396	37.6	19	21.1
fever	381	40.7	6	16.7	fertile	384	17.7	18	27.8
fever	382	31.2	17	5.9	fertilizer	395	28.4	16	12.5
favorite	375	49.1	15	13.3	ferry	395	35.4	16	6.3
feam	382	43.5	17	29.4	festival	384	42.7	18	25.0
fear	371	48.5	15	26.7	fective	402	42.7	18	27.8
fearful	371	45.6	12	25.0	fectivity	390	30.6	18	22.2
feartless	371	33.2	12	16.7	fecch	383	33.8	17	29.4
feast	358	31.6	21	33.3	fecch	375	31.6	21	23.8
feet	367	29.4	16	37.5.	feed	375	29.6	15	20.0
feature	376	26.3	23	26.1	few	383	59.8	21	19.0
feature	395	22.5	16	50.0	fib	355	31.3	17	23.5
February	378	79.4	13	46.2	flection	355	38.0	17	11.8
federal	296	33.8	10	20.0	fiddler	314	42.0	13	15.4
fee	354	30.2	17	17.6	field	355	33.0	17	5.9
feeble	371	41.5	15	26.7	field	383	56.7	21	23.8
feebleness	382	34.0	17	23.5	fierce	355	31.0	17	17.6
feed	371	57.1	12	16.7	effacea	320	77.8	9	22.2
feed	319	53.3	12	16.7	effeb	395	67.1	16	56.3
feeding	376	44.1	16	12.5	effey	373	65.1	14	7.1
follow	364	27.2	14	14.3	fig	320	28.8	9	55.6
followership	375	38.4	15	40.0	fight	383	64.8	21	42.9
felt	398	23.1	21	42.9	fighcar	369	57.5	13	38.5
female	363	59.0	13	38.5	figure	383	31.9	15	26.7
female	371	47.7	12	25.0	figure	371	25.3	12	8.3
fender	379	23.5	5	20.0	flie	381	24.7	6	.0

PROD	TOTAL		AGE 7		PROD	TOTAL		AGE 7	
	Prod.	%	Prod.	%		Prod.	%	Prod.	%
flle	363	35.8	13	46.2	firing	396	36.4	19	52.6
flil	402	41.0	18	27.8	fireman	355	43.1	17	11.8
fliler	399	34.6	11	36.4	fireproof	355	58.9	17	29.4
flilch	305	26.2	13	15.4	fireside	355	34.4	17	35.3
flilby	396	29.3	19	26.3	firewood	355	43.4	17	29.4
flila	376	25.5	19	15.8	fireworks	355	46.5	17	29.4
flia	390	46.9	17	41.2	firm	382	28.5	17	17.6
flial	320	33.8	9	11.1	firmness	402	37.8	18	5.6
flially	360	37.8	16	18.8	firmst	395	48.6	16	50.0
flance	390	28.2	17	17.6	flish	402	63.7	18	33.3
flind	381	31.0	6	33.3	flisbery	378	54.2	12	25.0
flino	373	23.9	14	35.7	flisc	402	32.6	18	11.1
flino	376	28.7	16	18.8	flic	355	48.7	17	23.5
flinger	390	60.8	17	35.3	flive	308	68.2	8	37.5
flingerall	307	39.1	8	25.0	flix	402	32.6	18	16.7
flinleh	397	50.9	16	37.5	fliscure	410	28.5	24	12.5
flinleh	311	42.1	11	27.3	flabby	410	33.2	24	20.8
flir	380	39.2	13	46.2	flake	397	40.3	13	15.4
flire	400	63.8	12	41.7	flaby	410	23.4	24	20.8
fliream	366	41.5	17	17.6	flame	364	39.3	16	12.5
flirefly	383	43.6	21	19.0	flameel	410	32.0	24	25.0

-46-

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
flap	378	29.1	12	16.7	flint	382	31.9	17	47.1
flap	365	32.3	14	14.3	flap	373	27.3	14	21.4
flare	402	47.3	18	50.0	flirt	399	42.1	11	27.3
flash	291	62.5	5	.0	float	371	43.7	12	8.3
flashlight	363	59.2	13	38.5	fleck	378	33.9	13	23.1
flac	372	50.0	15	40.0	flood	305	63.6	13	46.2
flac	343	21.9	18	33.3	floor	380	56.3	13	7.7
flaction	343	44.0	18	27.8	flop	402	29.4	18	16.7
flacter	375	29.1	15	40.0	flop	382	35.3	17	17.6
flavor	402	46.0	18	27.8	floral	402	35.3	18	27.8
flavoring	376	41.2	23	21.7	florist	364	42.0	14	14.3
flax	375	31.5	15	20.0	flouse	378	24.1	12	16.7
flax	375	45.9	15	6.7	flounder	360	24.4	16	31.3
flack	396	29.5	19	31.6	flounder	371	38.0	12	25.0
flacked	365	28.5	14	7.1	flour	390	48.5	17	17.6
flac	365	30.1	14	21.4	flour	400	33.0	12	16.7
flaces	374	29.1	14	21.4	flour	377	58.1	20	20.0
flacy	354	30.5	17	11.8	flour	307	51.8	14	35.7
flac	402	27.1	18	11.1	fluffy	355	22.8	17	23.5
flack	378	29.4	12	16.7	fluff	369	37.4	20	30.0
flackable	367	27.2	16	6.3	fluff	377	44.8	15	26.7
flacker	374	26.7	17	17.6	fluff	374	32.4	14	35.7
flack	369	41.5	20	20.0	flucter	320	21.6	9	22.2
flack	360	44.7	16	31.3	fly	383	63.2	15	40.0
flack	309	24.3	9	11.1	foam	313	38.3	13	30.8
flack	367	28.1	16	31.3	foe	363	34.4	13	23.1

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
fog	360	55.0	16	25.0	forbid	358	31.0	15	33.3
foggy	307	41.0	14	28.6	forbidden	358	37.7	15	13.3
foil	307	32.2	14	35.7	force	305	33.4	13	15.4
fold	307	40.4	14	42.9	ford	371	28.6	14	14.3
folder	372	47.0	15	40.0	forecast	369	32.2	20	20.0
folklore	376	27.7	16	6.3	forefather	355	27.9	17	11.8
folks	369	42.3	20	35.0	foreign	402	31.8	18	33.3
follow	355	48.5	17	23.5	foreigner	395	33.9	16	25.0
follower	366	30.3	17	35.3	forehead	383	52.0	22	22.7
following	371	34.0	12	33.3	foreleg	402	53.7	18	55.6
fond	373	35.9	14	14.3	forman	362	34.8	16	25.0
fondness	399	39.8	11	36.4	fornoon	371	52.3	16	37.5
food	404	76.2	13	30.8	forepaw	311	52.1	11	54.5
fool	395	50.4	16	56.3	foresee	378	33.1	12	33.3
foolish	397	43.6	13	46.2	foresight	296	27.7	10	20.0
foolishness	364	48.6	14	14.3	forest	372	59.9	15	26.7
foot	371	68.2	15	33.3	forester	371	40.7	16	31.3
football	374	74.3	17	47.1	foretell	376	24.2	23	13.0
football	360	41.9	16	43.8	forever	369	41.2	13	.0
foolights	307	49.5	8	25.0	forgave	377	31.0	20	25.0
footman	309	22.7	9	11.1	forfeit	399	24.3	11	27.3
footpath	381	35.7	6	.0	forge	374	28.6	18	33.3
footprint	305	40.0	13	23.1	forget	366	54.6	17	35.3
footsteps	377	22.5	20	40.0	forgetful	395	31.1	16	31.3
footstool	358	47.2	15	13.3	forgetfulness	397	37.8	13	7.7
footwear	374	65.5	17	35.3	forgive	302	34.1	12	16.7
for	343	41.4	17	22.2	forgiveness	354	44.4	12	16.7

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
fork	377	50.9	20	35.0	fragile	355	36.1	17	11.8
fork	358	27.1	15	26.7	fragrance	374	26.5	18	27.8
form	369	27.4	13	30.8	frail	397	28.7	16	31.3
formation	377	26.3	20	30.0	frame	307	33.9	8	25.0
forake	347	26.5	12	8.3	frank	374	27.0	17	17.6
foraken	307	24.1	8	12.5	frankfurter	381	28.1	6	16.7
fort	390	47.4	17	29.4	frantic	358	31.3	15	6.7
forth	378	24.1	13	.0	freckle	358	35.8	15	33.3
fortress	313	25.2	13	38.5	free	402	36.3	18	22.2
fortunate	341	27.3	12	16.7	freedom	302	42.7	12	16.7
fortune	382	34.3	17	35.3	freeman	381	35.7	6	.0
fortuneteller	390	35.1	17	17.6	freeze	358	60.3	15	13.3
forty	308	64.0	8	37.5	frezer	362	58.8	16	43.8
forward	395	34.2	16	31.3	freight	384	30.2	18	22.2
fossil	397	28.7	16	25.0	freighter	382	31.9	17	23.5
foul	367	39.5	16	31.3	French	384	42.4	18	27.8
foundation	358	21.2	21	28.6	frequent	402	27.1	18	16.7
founder	390	41.5	17	23.5	frosh	320	34.7	9	33.3
fountain	390	36.7	17	41.2	freshman	369	41.7	20	25.0
four	390	69.0	17	29.4	freshness	305	47.5	13	15.4
fourteen	390	66.2	17	47.1	fret	305	30.2	13	15.4
fourth	390	65.6	17	29.4	frier	400	26.0	12	25.0
fowl	358	32.4	15	13.3	Friday	376	74.5	19	26.3
fox	376	77.4	23	52.2	friend	381	52.5	6	33.3
foxy	358	34.1	15	.0	friendless	309	50.8	9	33.3
fraction	404	29.7	13	23.1	friendliness	390	43.1	17	23.5
fracture	394	27.9	16	37.5					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
friendly	377	61.0	15	60.0	fullness	394	44.9	16	43.8
fright	371	39.1	12	41.7	fully	410	42.2	24	25.0
frightful	363	38.3	13	15.4	fumble	366	29.5	17	17.6
frighten	354	57.1	17	29.4	fume	341	33.7	12	16.7
frill	376	30.3	16	12.3	fun	291	77.7	5	.0
fringe	376	32.2	23	26.1	fund	291	51.2	5	20.0
frisk	305	25.9	13	23.1	funeral	374	48.9	14	28.6
frisky	341	27.3	12	16.7	funnel	374	24.1	14	21.4
frock	390	17.9	17	29.4	fur	374	63.9	14	50.0
frog	395	73.7	16	56.3	furlous	341	35.5	12	41.7
frolic	347	23.3	12	25.0	furnace	358	30.2	15	20.0
from	320	45.6	9	33.3	furnish	374	40.6	14	.0
front	404	53.7	13	30.8	furnishings	371	58.5	16	25.0
frontier	398	31.7	21	4.8	furrow	383	33.4	15	40.0
frost	314	57.3	13	30.8	furry	383	40.7	15	20.0
frosty	302	59.3	12	33.3	further	382	44.0	17	23.5
frown	354	38.1	17	17.6	furtherest	374	30.7	17	23.5
frozen	398	55.8	21	19.0	furthermore	383	20.6	15	26.7
fruit	380	55.3	13	7.7	fury	307	42.0	14	50.0
fray	320	50.9	7	14.3	fussy	341	29.3	12	25.0
fudge	381	48.3	6	66.7	future	307	43.0	14	21.4
fuel	371	49.9	16	18.8	fussy	341	41.1	12	25.0
fulfill	371	25.1	15	13.3	fussy	307	45.0	14	42.9
fulfillment	378	39.2	12	33.3					
full	374	55.1	17	35.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
gadget	372	21.2	15	26.7	garden	341	69.8	12	50.0
gag	369	22.0	13	23.1	gardener	360	53.6	16	18.8
gag	399	32.8	11	45.5	gardenia	343	44.9	18	11.1
gaily	380	29.2	13	7.7	garble	311	25.4	11	18.2
gain	376	38.3	19	21.1	garlic	366	36.3	17	23.5
gale	402	25.1	18	38.9	garment	374	28.6	17	17.6
gallant	374	28.1	14	21.4	garter	374	24.6	14	35.7
gallery	296	40.9	10	20.0	gas	369	52.0	20	25.0
galley	396	24.2	19	36.8	gash	396	25.3	19	21.3
galley	362	24.6	16	50.0	gasp	383	36.0	22	9.1
gallon	367	54.0	16	18.8	gate	343	61.8	18	16.7
gallop	347	36.6	12	33.3	gather	302	41.4	12	25.0
gallovs	399	23.1	11	9.1	gathering	358	24.9	21	19.0
galoshes	311	30.2	11	9.1	gay	400	50.0	12	41.7
gamble	410	27.8	24	16.7	gayety	296	39.2	10	30.0
gambler	371	31.8	14	35.7	gaze	320	26.3	7	57.1
game	374	63.1	18	27.8	gear	383	26.6	22	27.3
game	371	28.8	15	26.7	gem	363	36.9	13	30.8
gander	313	29.4	13	30.8	general	404	24.0	13	15.4
gang	313	46.0	13	23.1	generally	397	25.9	13	15.4
gangplank	399	20.8	11	18.2	generate	378	23.0	12	16.7
gangster	363	44.6	13	46.2	generation	395	25.8	16	43.8
gap	377	23.3	20	25.0	generosity	398	31.9	21	9.5
garage	354	57.1	17	29.4	generous	399	32.3	11	18.2
garbage	398	41.0	21	33.3	gentle	363	34.7	13	30.8
					gentle	383	43.6	21	23.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
gentleman	302	40.1	12	25.0	glacial	378	31.7	12	33.3
gentleness	372	48.9	15	20.0	glacier	373	37.0	14	35.7
genuine	358	23.5	15	6.7	glad	366	62.8	17	47.1
geography	377	41.9	15	33.3	gladden	404	38.1	13	7.7
geographer	377	60.5	15	46.7	gladiators	390	44.9	17	23.5
geranium	397	26.2	16	12.5	glamorous	378	31.2	12	25.0
pasture	394	28.7	16	18.8	glamour	398	26.9	16	18.8
get	377	46.2	20	25.0	glance	394	34.5	16	37.5
ghost	305	41.0	13	.0	gland	341	34.9	12	.0
ghostly	398	32.9	21	28.6	glare	363	33.9	13	23.1
glance	374	52.9	14	21.4	glare	340	35.3	12	25.0
gift	307	59.6	14	42.9	glare	365	32.3	14	42.9
gigantic	402	22.6	18	16.7	glassware	367	35.4	16	31.3
giggle	371	34.5	14	14.3	glassy	404	22.3	13	7.7
gin	364	28.8	14	7.1	glaze	398	28.4	16	18.8
gin	374	28.1	14	28.6	gleam	400	31.5	12	33.3
ginger	365	37.5	14	35.7	gleeful	371	29.1	15	20.0
gingham	362	23.5	16	12.5	glide	302	32.1	12	8.3
gingerbread	305	60.3	13	23.1	glider	307	30.9	8	12.5
giraffe	396	66.2	19	36.8	glimmer	383	25.8	21	14.3
girl	398	71.4	16	18.8	glimpse	369	21.1	20	20.0
girlhood	366	40.4	17	23.5	glisten	362	19.9	16	12.5
girlish	366	61.7	17	17.6	glitter	398	30.2	21	9.5
give	377	55.4	15	40.0	globe	397	45.3	16	31.3
gliver	378	34.7	12	.0	gloom	358	30.7	21	23.8
glizzard	376	22.6	23	30.4	gloomy	410	33.4	24	25.0

WORD	TOTAL		AGE 7	TOTAL		AGE 7
	Prea.	%		Prea.	%	
glorify	374	21.9	17	35.3		
glorious	314	32.8	13	7.7		
glory	358	42.7	15	33.3		
glaze	376	31.9	23	13.0		
glossy	314	27.1	13	15.4		
glows	311	68.5	11	36.4		
glow	397	36.0	13	15.4		
glowworm	305	31.5	13	.0		
glue	313	64.2	13	53.8		
glue	383	30.3	15	26.7		
glut	320	28.1	9	.0		
glue	400	22.0	12	25.0		
grass	296	31.1	10	10.0		
go	320	67.2	9	11.1		
goal	397	25.4	16	12.5		
goalie	360	34.2	16	12.5		
goat	371	67.7	12	33.3		
gobbler	379	35.4	5	20.0		
goblin	398	21.6	16	18.8		
goat	363	34.4	13	30.8		
godfather	358	34.6	21	26.6		
godlike	320	57.5	7	14.3		
godly	366	26.5	17	5.9		
godmother	369	63.7	20	20.0		
golden	365	54.2	14	28.6		
goldenrod	319	30.7	12	16.7		
goldfinch	397	41.1	16	18.8		
goldfish	369	57.2	20	20.0		
goldsmith	354	49.4	12	16.7		
golf	374	63.6	17	29.4		
gong	355	42.0	17	35.3		
good	309	51.1	9	33.3		
goodies	376	41.2	23	39.1		
goodness	397	44.8	13	30.8		
goodwill	397	46.1	13	30.8		
goose	383	65.5	15	40.0		
goose	376	41.5	16	25.0		
gooseberry	379	38.0	5	.0		
goopher	362	32.6	16	12.5		
gorge	319	19.1	12	16.7		
gorgeous	371	25.1	14	14.3		
gorilla	397	43.6	16	43.8		
gossling	363	33.9	13	23.1		
gospel	296	35.8	10	.0		
gospel	341	32.6	12	8.3		
gouge	376	30.6	23	26.1		
gourd	398	22.6	16	12.5		
govern	358	30.4	15	13.3		
government	365	49.0	14	35.7		
governor	319	49.8	12	16.7		

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Pres.	Z	Pres.	Z		Pres.	Z	Pres.	Z
goon	296	29.7	10	20.0	grass	398	63.8	21	28.6
grab	376	42.6	19	36.8	grasshopper	378	50.8	12	.0
grace	320	32.8	9	.0	grassy	308	62.3	8	62.5
graceful	373	33.0	14	14.3	grate	394	31.0	16	18.8
gracious	399	39.8	11	9.1	grate	379	31.1	5	20.0
grade	376	69.1	23	30.4	grateful	296	47.6	10	60.0
grade	291	11.7	5	20.0	gratitude	343	38.2	18	22.2
gradual	369	31.2	13	23.1	grave	305	31.8	13	7.7
graduate	398	58.0	16	12.5	grave	308	46.8	8	25.0
graduation	397	34.8	13	15.4	gravel	366	41.0	17	23.5
grammar	383	27.4	15	6.7	gravitation	371	34.2	12	33.3
grand	378	26.2	12	8.3	gravity	371	46.6	14	14.3
grandchild	384	53.9	18	22.2	gravy	376	51.1	23	30.4
granddaughter	332	46.7	10	10.0	gray	341	82.1	12	58.3
grandfather	380	68.9	13	38.5	grayheaded	319	50.5	12	33.3
grandpa	402	58.7	18	33.3	graze	380	39.7	13	30.8
grandparent	383	77.3	21	47.6	grease	314	34.4	13	30.8
					great	341	49.6	12	16.7
grandson	383	39.7	15	20.0	greatness	399	41.4	11	27.3
grandstand	373	33.0	14	28.6	greet	384	29.7	18	38.9
granite	363	28.4	13	23.1	green	302	87.4	12	75.0
grant	402	30.1	18	33.3	greenhouse	397	62.7	13	23.1
granulate	383	31.9	21	23.8	greet	366	36.6	17	11.8
grape	398	66.6	21	9.5	greeting	400	48.3	12	25.0
grapefruit	367	66.2	16	37.5	grayhound	354	47.5	12	25.0
grasp	291	35.4	5	.3	gridlike	375	26.9	15	33.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
grief	371	41.0	15	40.0	grumpy	369	39.0	13	38.5
grieve	398	27.9	16	18.8	guarantee	343	22.7	18	16.7
grine	376	25.8	23	26.3	guard	374	42.0	18	33.3
grin	374	29.4	18	33.3	guardhouse	358	41.3	15	33.3
grind	400	32.3	12	16.7	guardian	371	42.6	12	41.7
grindstone	354	35.9	12	25.0	guardianship	305	29.5	13	7.7
grip	341	29.0	12	8.3	guess	365	46.0	14	35.7
gripe	374	36.1	17	29.4	guest	354	35.6	12	25.0
gric	400	27.5	12	25.0	guidance	354	35.6	12	.0
grizzly	340	36.8	12	25.0	guide	341	41.6	12	33.3
grocer	302	51.7	12	.0	guit	358	26.8	15	26.7
grocery	311	58.2	11	27.3	guitclose	398	26.9	16	12.5
groem	365	31.5	14	42.9	guitly	383	29.0	21	19.0
groem	314	22.9	13	15.4	guitar	379	33.5	5	40.0
groem	313	39.0	13	15.4	gulf	397	27.5	13	30.8
groove	358	27.1	15	.0	gulf	398	48.5	16	25.0
grouch	319	32.6	12	8.3	gull	366	33.3	17	23.5
ground	314	52.2	13	23.1	gully	400	19.0	12	8.3
group	377	48.0	15	20.0	gulp	343	33.2	18	16.7
grove	358	31.6	15	26.7	gun	320	40.3	9	22.2
grow	390	56.7	17	29.4	gunner	291	58.4	5	.0
growth	374	38.5	17	23.5	gunpowder	376	46.0	16	18.8
grub	383	26.6	15	20.0	guesh	358	31.0	21	38.1
grudge	380	25.0	13	23.1	guest	404	27.2	13	7.7
gruesome	404	37.4	13	30.8	gut	354	24.9	12	25.0
gruff	404	26.0	13	38.5	gutter	379	32.2	5	.0
grumble	375	32.8	15	20.0					

Word	TOTAL		AGE 7	
	Freq.	%	Freq.	%
guy	373	43.4	14	35.7
gymnasium	377	59.2	15	26.7
gymnastics	399	51.6	11	18.2
gyp	374	25.4	17	17.6
gypsy	355	34.9	17	35.3

WORD	TOTAL		AGE 7	AGE 7		WORD	TOTAL		AGE 7	AGE 7	
	Prct.	%		Prct.	%		Prct.	%		Prct.	%
babble	377	28.1	15	26.7		handcuff	366	33.6	17	5.9	
babble	395	14.4	16	18.8		handful	398	21.1	16	6.3	
back	376	27.7	23	30.4		handkerchief	362	48.6	16	23.0	
bag	309	29.1	9	33.3		handle	320	54.4	9	33.6	
ball	390	47.4	17	29.4		handmade	311	36.0	11	27.3	
ball	291	35.4	5	20.0		handmade	376	63.3	19	42.1	
ballroom	398	43.0	16	12.5		handwriting	362	47.2	16	43.0	
ball	296	59.8	10	50.0		handy	311	36.7	11	27.3	
ballroom	343	58.6	18	27.8		hang	376	32.2	23	24.8	
ballroom	383	50.4	15	20.0		hangar	332	30.7	10	30.0	
ball	366	44.5	17	11.8		hangar	376	42.0	19	10.5	
ballroom	377	42.2	20	35.0		hangar	376	42.0	19	10.5	
ballroom	398	22.9	16	31.3		hangar	378	50.0	12	33.3	
ballroom	354	48.0	17	35.3		hangover	354	37.6	12	33.3	
ballroom	380	25.0	13	15.4		hangover	358	47.8	13	13.3	
ballroom	367	36.0	16	31.3		happen	383	33.4	22	4.5	
ballroom	375	32.0	15	13.3		happening	377	52.3	15	33.3	
ballroom	394	34.3	16	37.5		happily	398	44.7	21	42.9	
ballroom	383	70.2	22	18.2		happiness	358	54.2	21	42.9	
ballroom	378	65.9	13	46.2		happy	371	41.0	14	21.4	
ballroom	365	62.7	14	35.7		happy	314	60.8	13	46.2	
ballroom	397	36.3	13	23.1		happy	383	27.4	21	18.0	
ballroom	309	20.7	9	22.2		happy	340	33.5	12	8.3	
ballroom	366	60.1	17	11.8		happy	365	32.9	14	21.4	
ballroom	302	62.4	12	8.3		happy	367	30.8	16	23.0	
ballroom	354	52.8	12	33.3		happy	371	35.3	12	16.7	
ballroom	365	41.4	14	21.4		happy	371	53.4	16	18.8	

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
headway	371	34.0	14	28.6	helr	380	26.2	13	38.5
heal	371	34.5	16	12.5	hellum	398	27.1	21	23.8
health	369	51.2	13	7.7	hell	362	37.8	16	18.8
healthful	308	36.0	8	62.5					
healthy	320	48.4	9	.0	hello	365	39.7	14	28.6
heap	302	35.1	12	33.3	helm	397	22.4	16	25.0
hear	307	60.9	8	12.5	helmet	371	29.4	12	25.0
hearer	394	58.4	16	37.5	helmsman	384	34.9	18	22.2
hearing	383	64.8	22	27.3	help	369	37.4	20	15.0
heart	397	63.2	16	43.8	help	363	45.7	13	38.5
heartbreak	373	32.2	14	14.3	helper	376	26.3	19	10.5
heartbroken	341	39.9	12	16.7	helpful	371	35.6	14	21.4
hearth	371	24.3	12	25.0	helpless	382	31.4	17	29.4
heartless	395	29.6	16	12.5	hem	320	36.9	7	14.3
heartly	311	38.3	11	18.2	hemisphere	369	45.3	20	20.0
heater	341	51.6	12	25.0	hemoglobin	296	28.0	10	30.0
heave	291	31.6	5	20.0	hen	378	68.3	13	30.6
heaven	369	58.5	13	38.5					
heaviness	313	46.6	13	15.4	henhouse	332	67.8	10	40.0
heavy	311	63.0	11	27.3	her	347	62.0	12	8.3
hedge	302	29.8	12	50.0	herb	365	17.3	14	7.1
head	314	22.0	13	23.1	herd	378	36.0	12	25.0
heedless	382	34.3	17	29.4	here	308	55.8	8	50.0
heel	372	47.0	15	26.7	hereabout	320	43.8	7	14.3
height	371	43.9	14	.0	hereafter	375	37.9	15	13.3
heighten	373	25.7	14	14.3	herewith	311	21.9	11	.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
hero	379	48.8	5	40.0	hind	378	36.2	13	7.7
heroic	371	31.5	15	20.0	hindquarters	382	25.7	17	35.3
heroin	398	36.2	16	12.5	bingo	360	36.1	16	31.3
heroin	364	45.1	16	31.3	blnc	296	42.6	10	10.0
herring	375	20.3	15	33.3	blp	354	49.4	17	29.4
here	373	56.3	14	14.3	hippopotamus	347	57.3	12	25.0
hesitant	364	26.6	16	12.5	hire	365	32.1	14	21.4
hesitate	365	23.3	14	35.7	his	410	53.9	24	16.7
hesitation	364	18.1	14	42.9	history	397	34.6	13	46.2
hibernate	383	29.5	21	14.3	historian	314	45.9	13	30.8
hiccup	320	26.9	9	22.2	hlc	366	32.5	17	17.6
hickory	372	28.5	15	26.7	hlc	320	41.6	9	22.2
hidden	397	26.4	13	7.7	hitch	374	32.4	17	35.3
hide	358	36.6	21	33.3	hitchhike	355	42.5	17	35.3
hideous	332	21.1	10	30.0	hither	375	21.1	15	20.0
high	369	62.6	13	23.1	hive	366	42.9	17	5.9
highland	373	53.4	14	26.6	hives	362	29.1	17	11.8
highroad	309	61.5	9	22.2	hoarse	347	29.4	12	10.7
highway	366	63.4	17	23.5	hobble	302	20.5	12	8.3
hike	364	47.5	14	7.1	hobby	396	44.7	19	26.3
hilarious	373	41.8	14	26.6	hobbyhorse	397	43.1	16	31.3
hili	307	50.5	8	37.5	hobo	320	25.6	9	33.3
hiliop	341	32.3	12	16.7	hockey	376	40.7	16	12.5
hilly	376	44.9	23	21.7	hoe	360	37.8	16	18.8
him	377	45.4	20	40.0	hog	311	57.6	11	27.3
					holat	358	13.7	21	19.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
hold	365	39.7	14	28.6	hood	314	30.9	13	30.6
holder	307	32.2	8	25.0	hoodlum	377	39.3	20	15.0
holdup	383	28.5	22	10.2	hoof	404	31.9	13	38.5
hole	398	50.8	21	28.6	hook	379	43.8	5	.0
holiday	376	50.3	19	36.8	hooky	354	22.0	17	11.8
holiness	371	35.8	14	20.6	hoop	384	32.6	10	50.0
hollow	358	32.7	15	33.3	hoopla	379	46.7	5	20.0
holly	365	37.3	14	28.6	hoor	397	39.0	16	31.3
hollyhock	313	24.0	13	15.4	hop	366	71.6	17	17.6
holster	380	22.9	13	30.8	hope	376	54.0	16	43.8
home	398	67.8	16	25.0	hopeful	343	37.3	18	16.7
homeless	347	41.5	12	16.7	hopeless	319	42.6	12	16.7
homelike	410	54.4	24	25.0	horizon	364	20.0	14	.0
home ly	309	27.5	9	33.3	horizontal	354	23.7	12	25.0
homemaker	347	51.9	12	25.0	horned	305	31.0	13	23.1
homelick	372	60.5	15	26.7	hornet	374	34.2	17	23.5
homestead	364	36.0	16	37.5	horrible	397	39.0	13	23.1
homespun	383	30.5	15	20.0	horrid	395	25.3	16	25.0
homicide	313	35.8	13	23.1	horrify	332	27.4	10	30.0
honest	371	47.2	15	13.3	horror	371	45.0	13	6.7
honesty	371	51.5	16	6.3	horse	402	67.9	18	27.8
honeycamb	366	40.4	17	11.8	horsefly	354	41.5	12	41.7
honeymoon	378	31.5	12	41.7	horsehair	377	52.5	15	46.7
honeystickle	314	26.4	13	23.1	horseman	305	58.4	13	23.1
honor	373	40.8	14	21.4	horsepower	332	26.8	10	10.0
hood	341	29.6	12	16.7	horseshoe	305	57.7	13	15.4

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Prct.	%	Prct.	%		Prct.	%	Prct.	%
hose	307	45.0	14	50.0	hub	372	24.7	15	13.3
hostery	371	28.3	12	33.3	hubbub	384	23.2	18	5.6
hospitable	376	49.7	23	34.8	huddle	314	26.8	13	38.5
hospital	371	78.2	14	35.7	hug	309	45.3	9	11.1
hospitality	396	39.2	16	18.8	huge	309	42.1	9	11.1
host	371	17.8	14	7.1	hulk	363	24.0	13	23.1
host	320	35.3	7	14.3	hull	354	28.2	12	8.3
hostage	374	30.2	14	21.4	hum	366	36.6	17	11.8
hostess	374	41.4	17	29.4	human	311	46.3	11	18.2
hostile	376	33.5	23	8.7	humble	394	26.9	16	18.8
hostility	377	27.9	20	20.0	humid	404	31.2	13	30.8
hot	371	76.3	12	56.7	humidity	376	40.4	19	15.8
hotel	291	50.5	5	20.0	humiliate	378	24.9	12	33.3
hound	377	43.2	15	33.3	hummingbird	371	53.1	14	7.1
hour	320	59.7	9	.0	humor	309	29.8	9	11.1
hourly	362	47.0	16	31.3	humorous	355	29.0	17	33.9
house	364	77.7	14	50.0	hump	314	36.3	13	15.4
household	363	55.1	22	27.3	hunch	376	14.6	16	25.0
housekeeper	374	60.4	17	41.2	hunchback	366	40.7	17	29.4
housekeeping	378	59.0	12	25.0	hundred	313	64.5	13	30.8
housemaid	371	41.5	16	25.0	hunger	369	37.4	20	25.0
housetop	379	55.9	5	40.0	hungrily	363	41.3	13	23.1
housewife	377	59.4	15	66.7	hungry	383	60.1	22	27.3
housing	369	44.4	13	15.4	hunk	399	45.6	11	45.1
how	377	46.4	20	35.0	hunt	399	38.1	11	9.1
however	360	38.3	16	18.8					
howl	362	32.0	16	25.0					

ICRD	TOTAL		AGE 7	
	Freq.	%	Freq.	%
bunter	383	55.1	21	19.0
buntman	372	54.6	15	26.7
berl	371	28.0	16	18.8
berticase	410	43.7	24	37.5
bertled	378	42.6	12	25.0
bertlooly	383	52.2	21	9.5
bury	347	53.9	12	25.0
but	305	51.8	13	15.4
butland	364	62.1	14	35.7
bush	399	35.6	11	63.6
bush	376	21.3	19	15.8
bushy	373	37.0	14	7.1
bustle	372	36.0	15	53.3
but	371	34.5	12	33.3
byacianth	360	18.9	16	12.5
hydrant	371	26.7	14	35.7
byglene	396	31.3	19	5.3
bym	374	35.0	18	11.1
bymal	366	26.2	17	17.6
bypottlee	296	22.0	10	20.0
bypodermic	365	42.5	14	14.3
hystorical	371	31.0	16	25.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
I	371	55.3	15	20.0	imaginary	309	35.3	9	22.2
iceberg	366	39.9	17	23.5	imagination	376	33.2	23	13.0
icebox	398	50.8	21	23.8	imaginative	371	47.2	15	26.7
iced	347	60.5	12	41.7	imagine	308	36.4	8	12.3
iceicle	394	38.8	16	25.0	imitate	362	23.5	16	12.3
icy	314	61.8	13	23.1	imitation	314	27.1	13	13.4
idea	375	45.3	15	33.3	imitation	296	26.4	10	30.0
identify	374	30.2	14	21.4	immature	378	27.2	13	23.1
identity	382	27.0	17	17.6	immeasurable	378	39.7	12	33.3
idiot	366	29.5	17	29.4	immediate	400	25.3	12	23.0
idiotic	374	27.0	17	17.6	immense	320	18.4	9	11.1
idle	402	23.9	18	33.3	immigrant	296	36.1	10	90.0
idler	365	34.8	14	28.6	immigration	374	34.0	17	41.2
idol	365	33.7	14	7.1	immovable	364	31.0	14	28.6
if	364	47.3	14	14.3	imp	366	31.1	17	11.8
igloo	410	33.7	24	12.5	impatience	363	41.0	13	13.4
ignorance	380	35.8	13	23.1	impatient	341	22.9	12	41.7
ignorant	402	29.4	18	27.8	imperfect	362	35.6	16	23.0
ignore	397	32.7	13	23.1	imperfection	380	48.2	13	.0
ill	398	57.8	16	18.8	import	362	30.7	16	25.0
illegal	402	29.4	18	27.8					
illness	363	57.9	13	23.1					
illustrate	376	19.7	23	26.1					
illustration	400	33.3	12	25.0					
illustrator	396	42.4	19	36.8					
image	354	38.4	17	35.3					
imaginable	311	48.9	11	27.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
importance	410	26.3	24	37.5	incidental	365	37.8	14	28.6
important	296	40.5	10	40.0	incinerator	382	41.4	17	17.6
importation	390	36.2	17	35.3	include	302	29.8	12	25.0
importer	397	32.2	16	37.5	income	382	29.1	17	29.4
impossible	320	40.0	7	42.9	incomplete	394	36.6	16	37.5
impossibility	396	31.8	19	10.5	incorrect	347	37.5	12	25.0
imposter	400	28.5	12	33.3	increase	296	31.1	10	30.0
impractical	371	28.3	15	20.0	incredible	296	16.2	10	40.0
impress	399	25.6	11	36.4	incubator	332	32.8	10	10.0
impression	374	27.3	17	41.2	incurable	376	24.5	23	17.4
impressive	332	32.8	10	50.0	indebted	347	36.3	12	41.7
imprison	358	41.3	21	33.3	indecent	362	40.6	16	25.0
imprisonment	362	29.6	16	6.3	indcision	400	32.3	12	16.7
improper	320	31.6	7	71.4	indeed	371	21.6	12	33.3
improve	375	46.9	15	26.7	indefinite	410	21.7	24	33.3
improvement	374	47.1	14	35.7	indelible	398	29.9	21	14.3
impudence	394	34.8	16	25.0	indent	320	26.6	7	28.6
impudent	379	29.8	5	20.0	independence	400	46.8	12	8.3
in	397	54.9	13	30.8	independent	371	42.9	14	28.6
inability	296	35.5	10	40.0	incredible	410	28.8	24	29.2
inaccurate	380	39.7	13	30.8	index	374	50.5	14	21.4
incapable	382	39.3	17	11.8	indicate	366	27.6	17	29.4
incense	363	29.5	13	23.1	indication	360	40.0	16	12.5
inch	296	50.3	10	30.0	indigestible	397	30.0	16	25.0
incident	382	28.8	17	52.9	indigestion	374	29.7	14	35.7
					individual	374	34.0	14	50.0
					indoor	302	65.9	12	16.7

WORD	TOTAL		AES 7		WORD	TOTAL		AES 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
indoors	309	68.3	9	55.6	injustice	320	22.5	9	11.1
industrial	402	36.3	18	11.1	inlaw	371	35.8	12	16.7
industrious	374	47.9	14	42.9	inland	410	26.3	24	12.5
industry	379	41.4	5	40.0	inlet	397	40.8	13	44.2
industry	302	30.1	12	41.7	inlet	376	23.7	19	26.3
inexpensive	355	39.4	17	29.4	inmost	376	32.2	23	4.3
inexpensive	366	39.3	17	29.4	in	383	47.5	22	18.2
infant	374	25.7	14	35.7	inner	404	42.3	13	38.5
infantry	379	23.2	5	40.0	innermost	319	32.6	12	58.3
infect	291	43.0	5	40.0	inling	362	26.8	16	23.0
infection	311	44.4	11	18.2	inkeeper	383	43.9	21	23.8
infectious	376	32.7	16	31.3	innocence	291	35.1	5	.0
inflame	384	32.3	18	16.7	innocent	314	23.9	13	7.7
inflammable	399	34.8	11	27.3	innumerable	313	23.3	13	46.2
inflation	358	29.9	21	33.3	inquire	384	21.9	18	5.6
influence	374	20.1	17	11.8	inquisitive	397	35.8	16	25.0
inform	311	28.3	11	9.1	insane	371	29.6	12	25.0
information	376	40.4	19	15.8	insanity	382	34.3	17	17.6
infuriate	374	35.3	14	28.6	inscribe	296	19.6	10	10.0
ingratitude	307	39.7	8	.0	inscription	354	22.3	17	35.3
inhabitant	374	18.7	14	7.1	insect	400	57.0	12	41.7
inhale	381	26.5	6	33.3	insert	371	19.4	12	8.3
inheric	375	32.5	15	26.7	insist	363	39.4	13	15.4
inheritance	366	31.1	17	5.9	insole	366	34.4	17	29.4
initial	381	33.9	6	50.0	inspect	379	46.7	5	40.0
injection	296	38.2	10	20.0	inspection	375	42.7	15	20.0
injure	400	37.8	12	58.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
inspector	364	41.5	14	7.1	interfare	383	27.9	15	33.3
install	307	26.1	8	12.5	interference	365	42.2	14	33.7
installment	313	21.1	13	15.4	intemission	313	26.8	13	15.4
instant	397	25.4	16	25.0	interrupt	400	28.5	12	25.0
instantaneous	398	21.1	21	33.3	interruption	377	24.7	15	20.0
instantly	319	21.9	12	33.3	intersection	410	35.4	24	33.3
instead	305	32.8	13	.0	interview	397	37.3	16	18.8
institute	376	38.0	16	43.8	into	343	34.8	18	16.7
institution	362	46.4	16	31.3	intoxicate	372	28.8	15	40.0
instruct	358	24.0	21	23.8	intoxication	397	38.0	16	31.3
instruction	372	37.9	15	33.3	introduce	358	24.0	15	33.3
instructive	307	50.8	8	50.0	introduction	309	41.4	9	22.2
instructor	307	29.6	14	7.1	intrude	397	32.2	16	12.5
instrument	397	31.7	13	23.1	intrust	371	24.5	16	18.8
instrumental	366	33.3	17	17.6	invade	379	30.9	5	40.0
insult	313	35.1	13	38.5	invasion	384	31.5	18	16.7
insurance	375	31.2	15	33.3	invent	371	31.8	12	25.0
insure	305	32.5	13	23.1	invention	381	34.6	6	16.7
intelligence	311	34.4	11	45.5	inventor	378	30.4	13	15.4
intelligent	360	46.9	16	37.5	invert	319	32.0	12	16.7
intand	400	39.5	12	58.3	invest	378	20.4	12	25.0
intense	366	21.6	17	17.6	investment	320	30.0	7	71.4
intercept	398	21.1	16	12.5	investigate	384	25.8	18	11.1
interest	390	34.4	17	11.8	investigation	372	27.7	15	33.3
interested	397	23.7	16	31.3	investor	398	38.4	16	6.3
interesting	383	49.1	15	66.7	invisible	313	34.2	13	15.4

WORD	TOTAL		AGE 7	
	Prcc.	%	Prcc.	%
invitation	375	39.2	15	13.3
involve	376	37.0	19	15.8
involve	398	39.7	16	25.0
inward	320	41.9	9	22.2
iodine	291	38.1	5	20.0
iris	398	40.7	21	28.6
iris	381	35.2	6	33.3
iron	314	44.6	13	15.4
irregular	358	24.0	21	19.0
irresponsible	374	46.3	17	29.4
irrigate	340	32.6	12	8.3
irrigation	410	32.7	24	37.5
irritable	377	26.3	20	30.0
irritate	374	24.1	18	27.8
irritation	320	22.5	7	22.6
islander	364	33.0	14	7.1
isole	376	41.0	16	18.8
issue	365	36.7	14	14.3
it	374	52.1	14	35.7
italics	375	32.3	15	26.7
itch	302	38.1	12	41.7
item	363	39.4	13	30.8
ivory	364	41.7	18	27.8
ivy	332	39.2	10	10.0

WORD	TOTAL		AGE 7		WORD	TO AL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
job	364	32.1	16	25.0	jester	379	29.0	5	40.0
jabber	397	31.5	13	15.4	jet	371	16.7	15	20.0
jack	398	34.2	21	28.6	jet				
jackal	376	23.1	23	21.7	jet				
jackass	366	32.0	17	17.6	jet	372	61.0	15	13.3
jacket	398	70.4	16	43.8	jewel	320	42.5	9	11.1
jacks	360	50.0	16	25.0	jeweler	369	53.9	20	20.0
jagged	383	23.8	22	18.2	jiffy	296	25.7	10	20.0
jail	366	39.6	17	17.6	jiff	311	27.3	11	9.1
jailbird	313	49.2	13	23.1	jigaw	378	25.1	12	25.0
jailer	398	49.5	16	18.8	jigsaw	313	53.0	13	46.2
jam	319	37.0	12	33.3	jittery	371	44.5	14	42.9
janitor	296	31.4	10	32.0	job	364	65.4	14	28.6
january	397	76.1	13	30.8	jockey	398	46.5	21	28.6
jar	396	53.0	19	36.8	jog	309	29.4	9	22.2
jaw	332	34.6	10	30.0	join	398	41.0	21	28.6
jay	371	51.8	15	26.7	joint	394	43.7	16	25.0
jazz	347	31.1	12	33.3	joke	347	62.2	12	8.3
jealous	372	37.1	15	40.0	joker	307	56.7	14	21.4
jean	398	40.2	21	9.5	joking	341	51.0	12	33.3
jeans	377	43.2	15	20.0	jolly	400	50.3	12	66.7
jelly	296	72.3	10	40.0	jolt	384	22.9	18	27.8
jellyfish	343	65.9	18	44.4	jot	296	30.4	10	20.0
jerk	305	24.3	13	23.1	journal	360	30.6	16	18.8
jerk	296	38.2	10	20.0	journalist	376	42.8	19	15.8
jerky	398	28.9	21	19.0	journey	354	39.3	17	17.6
jersey	363	25.9	13	23.1	joy	396	41.7	19	21.1
					joyful	390	53.8	17	23.5

WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%
joyless	291	42.6	5	20.0
joyous	305	42.3	13	15.4
jubilee	313	38.3	13	23.1
judge	399	40.6	11	36.4
judgment	319	42.9	12	6.3
jug	374	41.7	17	41.2
juggle	399	29.3	11	9.1
juggler	314	39.5	13	30.8
juice	398	74.1	16	25.0
juicy	319	35.1	12	8.3
july	305	79.0	13	23.1
jumble	398	27.4	21	38.1
jump	360	51.1	16	16.8
jumper	394	20.3	16	25.0
jumpy	399	22.6	11	.0
juno	398	72.9	16	43.8
jungle	397	37.3	13	30.8
junior	308	54.9	8	.0
junk	347	29.1	12	16.7
juror	369	37.9	13	30.8
jury	381	48.3	6	33.3
just	364	34.9	16	25.0
just	358	30.7	21	23.8
justice	375	31.2	15	13.3
justify	376	54.5	19	47.4
juvenile	366	23.0	17	5.9

	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
kangaroo	410	68.3	24	33.3	king	410	34.1	24	29.2
keen	365	30.7	14	.0	kingbird	366	44.3	17	35.3
keenness	307	36.8	8	12.5	kingdom	410	34.1	24	33.3
keep	390	53.1	17	17.6	kingly	343	42.0	18	33.3
keeper	358	45.3	21.	28.6	kink	383	21.9	15	20.0
kannel	341	29.3	12	33.3	kiss	366	62.3	17	29.4
kerchief	302	38.7	12	50.0	kiss	313	35.1	13	30.8
kernel	358	23.5	15	33.3	kitchen	371	69.5	15	33.3
korosono	341	28.2	12	8.3	kite	376	70.5	23	43.5
kettle	366	40.2	17	23.5	kitten	410	74.1	24	37.5
key	341	50.4	12	33.3	kitty	366	68.6	17	17.6
keyboard	341	27.3	12	.0	knapsack	367	40.6	16	25.0
kid	341	55.7	12	33.3	knave	314	33.1	13	23.1
kidnap	319	36.1	12	25.0	knave	376	31.1	23	13.0
kidney	396	31.3	19	21.1	knife	376	60.6	23	21.7
kill	382	44.8	17	35.3	knight	364	40.1	14	21.4
killer	354	48.3	12	16.7	knighthood	375	34.7	15	40.0
kimono	374	19.8	17	47.1	knightly	362	34.0	16	37.5
kia	366	19.7	17	17.6	knave	355	26.5	17	35.3
kind	410	50.0	24	37.5	knave	376	39.4	19	10.5
kindergarten	341	50.7	12	41.7	knave	362	38.4	16	18.8
kindle	341	15.0	12	33.3	knave	380	51.3	13	15.4
kindliness	341	32.0	12	58.3	knave	380	41.8	13	7.7
kindling	365	19.5	14	35.7	knave	307	44.0	8	12.5
kindly	371	49.1	12	16.7	knave	376	52.4	19	10.5
kindness	376	51.1	16	25.0	knave	376	50.5	19	15.8
					knave	307	26.4	8	25.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
label	313	32.3	13	30.8	lendlady	398	28.1	16	0
labor	379	44.6	5	60.0	landlord	367	28.1	16	18.8
laboratory	358	34.1	21	33.3	landowner	332	46.1	10	50.0
laborer	371	38.5	15	20.0	landscape	378	25.7	13	15.4
lace	371	31.3	15	13.3	landslide	341	38.7	12	41.7
lack	398	27.6	21	19.0	lene	369	45.0	13	30.8
lacquer	371	27.2	15	6.7	language	313	53.0	13	38.5
lacy	367	16.3	16	6.3	lanky	332	17.8	10	10.0
lad	375	39.7	15	33.3	lantern	314	43.0	13	46.2
ladder	355	45.6	17	17.6	lap	390	35.4	17	5.9
lady	380	61.1	13	23.1	lap	354	41.2	17	11.8
ladybug	380	50.8	13	30.8	lapel	380	25.5	13	30.8
leg	383	26.1	15	26.7	lard	332	26.8	10	40.0
lake	383	64.2	15	20.0	large	302	67.9	12	16.7
lamb	376	71.5	19	42.1	lariat	358	23.5	15	20.0
lame	410	32.4	24	8.3	lark	367	28.3	16	12.5
lamp	374	70.1	17	58.8	lark	378	30.4	13	38.5
lamp light	355	39.2	17	23.5	lash	366	24.6	17	17.6
land	373	52.5	14	21.4	lass	373	25.2	14	14.3
landing	332	53.6	10	10.0	last	367	66.8	16	43.8
					lasting	319	39.8	12	33.3
					latch	307	33.2	8	25.0
					late	296	55.7	10	30.0
					late	364	28.3	14	21.4
					leather	400	31.5	12	16.7
					latitude	314	32.2	13	23.1

Word	TOTAL		AGE 7		Word	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
laugh	374	59.9	17	23.5	leap	320	38.1	7	28.6
laughter	314	51.6	13	23.1	learn	319	50.8	12	25.0
launch	377	23.3	20	15.0	leash	381	22.3	6	16.7
launder	305	41.3	13	7.7	least	404	38.1	13	23.1
laundress	369	44.4	13	23.1	leather	380	52.9	13	23.1
laundry	371	50.9	16	25.0	leathery	376	33.5	19	10.5
lava	364	40.4	16	18.8	leave	341	52.2	12	41.7
lavatory	374	28.9	17	29.4	lecture	372	28.8	15	6.7
lavender	390	19.7	17	41.2	lecturer	402	30.3	18	22.2
lav	367	60.2	16	18.8	ledge	380	30.8	13	23.1
lawbreaker	400	38.0	12	33.3	leftover	372	23.1	15	20.0
lawful	396	36.1	19	26.3	legal	319	33.5	12	8.3
lawless	367	39.8	16	25.0	legend	332	26.2	10	10.0
lawn	390	44.1	17	29.4	legislate	302	25.8	12	33.3
lawsuit	367	40.1	16	25.0	legislation	319	26.3	12	33.3
laxative	360	32.8	16	12.5	legislature	366	44.3	17	29.4
lay	358	48.0	15	6.7	lemon	309	66.0	9	77.8
layer	358	29.1	15	6.7	lemonade	398	60.6	16	12.5
lazy	381	61.9	6	.0	lend	363	27.5	13	30.8
laziness	358	39.4	15	40.0	length	369	45.3	13	7.7
lead	358	42.5	15	40.0	lengthen	358	33.8	15	13.3
leader	377	52.8	15	53.3	lens	358	33.0	15	26.7
leaflet	374	33.7	17	23.5	leopard	372	41.7	15	20.0
league	358	39.7	15	40.0	less	358	55.6	21	52.4
leaguc	340	25.6	12	25.0	lesson	410	43.7	24	25.0
lean	358	30.7	15	.0	let	397	40.8	13	46.2
lean	319	21.6	12	25.0	let	362	34.3	16	43.8

WORD	TOTAL		AGE 7	AGE 7		WORD	TOTAL		AGE 7	AGE 7	
	Freq.	Z		Freq.	Z		Freq.	Z		Freq.	Z
lecter	354	62.4	12	33.3		like	360	48.3	16	43.8	
lectuco	364	51.9	16	12.5		likable	396	39.6	19	31.6	
level	319	37.3	12	33.3		likeness	305	33.8	13	7.7	
lever	381	19.9	6	16.7		likevise	396	23.0	19	10.5	
libble	373	33.8	14	21.4		lilec	383	26.4	15	13.3	
liber	291	43.0	5	.0		lily	396	43.4	19	21.1	
liberty	291	60.8	5	.0		limb	313	31.6	13	30.8	
librarian	390	42.1	17	29.4		limber	378	32.8	12	41.7	
library	354	75.4	12	33.3		lime	396	51.3	19	26.3	
lice	402	42.0	18	22.2		lime	382	38.2	17	23.5	
license	320	38.8	7	42.9		linestone	399	46.6	11	45.5	
lick	319	41.1	12	16.7		limc	311	41.2	11	45.5	
lickorice	396	25.5	19	26.3		limtless	396	26.5	19	5.3	
lid	396	38.4	19	47.4		limp	397	41.8	16	31.3	
lie	396	51.0	19	15.8		line	396	26.3	19	42.1	
lieutenant	397	34.3	13	23.1		line	307	42.3	8	50.0	
life	320	56.6	7	28.6		linen	374	32.6	17	21.4	
lifeless	396	40.2	19	15.8		linger	410	16.3	24	20.8	
life-like	378	45.5	13	7.7		liniment	374	25.9	17	11.8	
lifelong	398	42.5	21	14.3		link	296	23.0	10	.0	
lifeline	396	39.9	19	31.6		linoleum	371	27.0	16	18.8	
life	396	34.1	19	42.1		lion	366	28.7	17	.0	
life	371	40.7	16	25.0		lioness	371	73.6	16	25.0	
light	396	71.0	19	31.6		lip	374	46.0	17	41.2	
lighten	396	50.0	19	31.6				50.0	10	50.0	
lightening	396	61.4	19	31.6							
lighthouse	396	40.9	19	26.3							
lightweight	374	35.0	17	23.5							

-74-

Word	TOTAL		AGE 7		Word	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
lipstick	384	42.2	18	38.9	locket	341	34.6	12	.0
liquor	364	35.2	16	37.5	lockjaw	390	35.1	17	23.5
list	309	53.1	9	22.2	locksmith	380	44.2	13	38.5
listen	374	55.6	17	29.4	locomotive	307	29.0	8	12.5
listener	375	41.3	15	13.3	locust	380	25.5	13	46.2
literature	362	26.0	16	18.8	lodge	313	36.1	13	23.1
litter	371	25.1	16	18.8	lodging	410	36.3	24	12.5
little	404	68.6	13	15.4	loft	377	24.4	15	13.3
live	400	55.3	12	16.7	lofty	374	23.3	17	23.5
lively	367	43.6	16	18.8	log	371	59.6	12	50.0
liver	404	38.1	13	53.8	log	308	23.7	8	25.0
livestock	376	37.0	16	25.0	logical	382	38.7	17	35.3
lizard	320	61.3	9	44.4	lotter	372	36.3	15	26.7
llama	398	42.7	16	25.0	lone	313	33.9	13	7.7
load	314	37.3	13	.0	loneliness	360	38.1	16	12.5
loaf	374	27.0	14	21.4	lonesome	303	47.0	15	26.7
loaf	307	26.4	8	12.5	lonely	360	48.1	16	43.8
loaf	307	26.4	8	12.5	long	382	63.1	17	29.4
loafer	363	33.3	13	15.4	longitude	360	45.6	16	18.8
loan	307	45.0	8	50.0	look	319	83.1	12	58.3
lobster	379	44.6	5	.0	lookout	382	47.9	17	17.6
lobby	404	29.0	13	30.8	loom	376	35.4	19	15.8
local	291	46.0	5	.0	loop	319	30.4	12	25.0
locality	374	34.5	18	5.6	loose	332	39.5	10	10.0
locate	378	32.3	13	38.5	loosen	308	29.2	8	25.0
location	354	35.9	17	29.4	loot	360	35.3	16	25.0
lock	307	26.1	14	14.3	lop	320	23.4	9	33.3
locker	377	65.3	15	46.7					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
lord	364	35.7	16	6.3	luggage	394	53.8	16	68.8
lordship	374	18.4	18	16.7	luteous	398	45.2	21	28.6
lose	362	54.1	16	25.0	lullaby	343	18.7	18	11.1
loser	371	50.4	16	18.8	lumber	308	44.2	8	12.5
loss	320	44.7	9	22.2	lumberman	394	53.3	16	43.8
lost	382	44.5	17	47.1	lure	383	36.3	22	18.2
lot	291	60.1	5	40.0	lurch	311	59.2	11	45.5
lotion	332	46.1	10	50.0	lure	354	48.6	12	25.0
loud	309	56.3	9	44.4	luster	381	20.7	6	16.7
loudness	360	42.5	16	50.0	luxury	398	31.7	21	23.8
lounge	398	42.2	21	14.3	lye	382	28.8	17	17.6
lounge	320	32.2	9	22.2	lying	398	44.0	16	18.8
love	383	42.0	15	40.0					
lover	313	59.1	13	38.5					
loveliness	313	51.1	13	38.5					
loving	313	28.8	13	23.1					
lovely	396	54.8	19	21.1					
low	291	67.4	5	40.0					
loyal	394	41.4	16	31.3					
loyalty	314	39.8	13	23.1					
lubricant	358	27.9	15	13.3					
luck	380	29.5	13	7.7					
luckily	383	33.9	15	40.0					
luckless	398	37.2	21	9.5					
lucky	378	37.8	12	.0					
lug	398	29.6	21	23.8					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	FREQ.	Z	FREQ.	Z		FREQ.	Z	FREQ.	Z
macaroni	399	43.4	11	54.5	maintain	371	28.0	16	25.0
machine	313	53.0	13	30.8	majesty	369	29.0	20	15.0
machinist	398	44.2	21	23.8	majesty	305	26.2	13	15.4
mackerel	382	19.9	17	11.8	major	398	40.5	21	9.5
mad	364	58.8	14	7.1	majority	362	48.5	16	25.0
madam	399	38.3	11	36.4	make	364	50.3	14	21.4
madman	307	54.1	8	25.0	maker	320	44.4	9	11.1
magazine	384	39.3	18	27.8	malaria	371	25.9	15	13.3
magic	340	39.7	12	25.0	male	364	53.3	14	21.4
magical	313	37.1	13	30.8	malt	354	33.3	12	25.0
magician	373	32.2	14	7.1	mama	364	70.9	14	28.6
magnet	377	44.0	15	20.0	mammal	376	55.6	19	15.8
magnetic	364	35.2	14	35.7	mammoth	364	36.0	14	21.4
magnificence	376	15.4	23	8.7	mammoth	343	33.5	18	16.7
magnificent	398	19.8	21	28.6	man	371	71.2	15	33.3
magpie	376	25.5	16	25.0	man	311	51.4	11	45.5
mahogany	383	25.3	15	20.0	manage	373	31.6	14	21.4
maid	396	40.7	19	10.5	management	371	32.6	14	21.4
maiden	398	37.7	21	38.1	manager	291	54.6	5	40.0
maidenhood	296	38.9	10	20.0	man	395	18.7	16	37.5
maidservant	355	29.0	17	23.5	manger	320	24.1	7	42.9
mail	362	78.7	16	62.5	manhood	320	42.2	7	.0
mailbox	365	82.2	14	3.7	maniac	364	28.6	14	14.3
mailman	364	67.3	14	21.4	manicure	367	23.2	16	12.5
main	341	40.8	12	8.3	mankind	371	40.7	16	37.5
mainland	398	33.7	21	9.5	manly	367	46.0	16	31.3
					manner	367	36.8	16	25.0

WORD	TOTAL		AGE 7		W.F.P.	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
manelon	367	20.7	16	12.5	marshmallow	360	43.9	16	18.8
mantel	320	25.3	9	11.1	marshy	363	35.0	13	23.1
manufacture	367	31.6	16	12.5	marriage	398	58.8	21	47.6
manufacturer	377	35.5	20	15.0	marry	296	48.0	10	20.0
manuscript	402	24.1	13	38.9	marvel	377	39.5	15	13.3
many	367	62.9	16	18.8	marvelous	369	42.8	13	23.1
map	374	53.7	14	35.7	marsh	400	44.3	12	66.7
maple	379	49.9	5	60.0	mask	365	48.8	14	28.6
marble	362	45.0	16	37.5	masquerade	371	23.5	14	14.3
march	383	67.9	15	40.0	mass	362	23.8	16	31.3
March	305	54.8	13	30.8	massive	308	34.4	8	25.0
mare	302	26.2	12	25.0	mast	366	23.2	17	23.5
margarine	367	41.7	16	25.0	master	374	28.1	14	21.4
margin	372	25.8	15	20.0	masterpiece	311	31.8	11	18.2
marigold	320	23.1	7	14.3	mat	398	34.4	21	23.8
marine	397	35.5	13	36.5	match	362	37.8	16	37.5
marinc	365	32.9	14	21.4	mate	307	47.6	8	12.5
marionette	398	23.4	21	23.8	mate	397	32.0	13	7.7
mark	367	50.7	16	18.8	mate	358	27.4	21	19.0
marker	379	40.4	5	60.0	material	320	31.3	7	14.3
market	358	43.3	21	28.6	mathematical	320	37.5	9	44.4
marksmen	376	34.0	23	26.1	mathematics	367	56.1	16	25.0
marshlade	364	20.6	16	31.3	matinee	366	55.2	17	23.5
maroon	364	18.4	16	12.5	matter	308	25.3	8	.0
maroon	366	29.5	17	23.5	matress	347	27.7	12	41.7
marsh	367	36.5	16	31.3	May	320	.0.6	7	.0
marshal	309	31.4	9	11.1		377	70.8	20	30.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
may	320	45.3	7	14.3	meet	366	50.5	17	17.6
maybe	302	53.3	12	25.0	meeting	383	40.7	22	4.5
mayonnaise	360	40.6	16	18.8	megaphone	366	32.2	17	17.6
mayor	376	42.0	19	36.8	melody	365	27.1	14	14.3
maypole	371	39.6	15	13.3	melon	383	50.7	22	4.5
me	302	77.2	12	25.0	member	364	38.2	14	7.1
meadow	382	49.6	17	17.6	membership	358	35.5	15	26.7
meal	366	65.0	17	29.4	memorable	377	31.6	15	20.0
meal	384	35.4	18	27.8	memorial	332	38.9	10	20.0
mean	397	40.8	13	23.1	memorize	400	19.8	12	16.7
meaning	384	32.6	18	22.2	memory	332	32.5	10	20.0
meaningless	377	36.9	20	15.0	menagerie	365	31.8	14	28.6
means	377	48.0	20	15.0	mend	394	41.1	16	43.8
meantime	366	33.6	17	5.9	mental	320	33.4	9	22.2
meanwhile	383	34.5	15	13.3	mentality	296	34.8	10	10.0
measles	371	41.8	14	35.7	mention	410	36.6	24	8.3
measure	308	46.4	8	12.5	menu	341	43.4	12	33.3
measurement	319	37.6	12	41.7	merchandise	366	30.6	17	35.3
meat	400	67.5	12	50.0	merchant	394	38.1	16	43.8
mechanic	384	38.3	18	44.4	merciful	383	32.4	21	19.0
mechanical	384	28.9	18	11.1	merciless	302	28.1	12	8.3
medal	376	35.6	23	8.7	mercury	399	34.3	11	45.5
meddle	366	31.7	17	17.6	mercy	399	39.1	11	27.3
medical	371	31.3	15	26.7	mere	308	19.8	8	25.0
medicine	394	52.0	16	31.3	mermaid	320	25.9	9	22.2
medium	373	41.0	14	42.9	merriment	320	18.1	9	.0
week	371	34.5	14	21.4	merry	366	56.0	17	29.4

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
mess	366	27.3	17	41.2	mill	309	46.3	9	22.2
mess	309	48.9	9	33.3	million	376	59.8	23	34.8
message	296	30.7	10	20.0	millionaire	314	37.6	13	23.1
messenger	309	38.5	9	11.1	millstone	384	35.2	18	33.3
meter	399	41.1	11	36.4	mimeograph	309	28.5	9	11.1
meter	309	37.2	9	22.2	mincemeat	309	31.1	9	11.1
method	309	23.0	9	22.2	mind	382	44.0	17	23.5
metropolis	399	24.6	11	27.3	mine	396	30.3	19	31.6
midday	309	41.7	9	22.2	mine	309	27.8	9	22.2
middle	309	44.7	9	11.1	miner	384	49.2	18	33.3
midget	309	36.6	9	22.2	mineral	311	42.1	11	27.3
midst	296	45.9	10	30.0	mingle	343	28.9	18	27.8
might	376	38.6	23	8.7	miniature	384	26.3	18	5.6
mighty	291	46.4	5	.0	mining	362	39.0	16	6.3
migrate	365	31.8	14	28.6	minister	382	35.1	17	29.4
migration	366	43.4	17	23.5	ministry	362	36.2	16	43.8
mild	314	26.8	13	15.4	mint	384	33.9	18	16.7
mildness	376	35.6	23	26.1	minor	364	27.2	16	12.5
mile	296	32.4	10	20.0	minot	376	29.3	16	25.0
mileage	309	38.8	9	22.2	minstrel	384	30.7	18	27.8
military	309	32.4	9	33.3	mint	378	37.8	13	30.8
mlk	296	77.0	10	40.0	mint	376	39.4	16	37.5
mlkweed	399	31.1	11	.0	minuet	384	26.8	18	22.2
mlky	365	70.7	14	35.7					
mlil	374	47.1	17	52.9					

WORD	TOTAL		AGE 7		HOPD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
minus	296	35.5	10	30.0	misunderstand	371	47.2	16	25.0
minute	366	63.7	17	29.4	mite	382	37.2	17	35.3
minute	364	20.6	14	7.1	mitc	358	42.5	21	33.3
miracle	384	27.9	18	22.2	mittent	308	60.1	8	62.5
mirror	384	63.3	18	50.0	mix	402	43.5	18	11.1
misbehave	384	29.4	18	11.1	mixer	308	37.0	8	37.5
mischief	384	36.5	18	22.2	mob	381	25.2	6	16.7
mischievous	296	22.3	10	40.0	moccasin	374	34.0	14	28.6
misconduct	376	27.9	16	37.5	mocassin	347	28.0	12	8.3
miserable	384	35.2	18	16.7	mock	364	26.9	14	28.6
misery	308	30.2	8	25.0	mockery	382	30.1	17	23.5
misfortune	394	45.7	16	56.3	model	398	24.6	16	18.8
misgiving	397	33.0	13	53.8	model	364	37.1	14	21.4
mislead	378	30.4	13	23.1	modern	382	31.7	17	23.5
mismanagement	369	32.5	13	30.8	modernize	397	22.7	16	25.0
misplace	410	31.0	24	33.3	modest	374	34.5	14	28.6
miss	395	27.8	16	12.5	moist	371	41.2	16	18.8
miss	375	69.1	15	40.0	moisten	383	30.8	15	40.0
mission	365	35.9	14	28.6	moisture	363	43.3	13	15.4
miset	383	33.2	21	9.5	molar	364	27.2	14	14.3
misetake	347	54.2	12	16.7	molasses	364	21.7	14	28.6
misgotten	308	49.0	8	12.5	mold	396	27.8	19	15.8
misflectoe	313	29.7	13	30.8	mold	341	36.7	12	33.3
misflectoe	397	32.0	16	37.5	mole	364	38.5	14	28.6
misflectoe	355	28.2	17	11.8	mole	320	43.1	7	28.6
misflectoe	380	35.8	13	15.4	moment	371	32.3	16	12.5
misflectoe					momentary	302	19.5	12	33.3

WORD	TOTAL		FREQ		WORD	TOTAL		FREQ	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
Monday	354	60.5	17	41.2	most	380	52.1	13	30.8
money	395	61.3	16	50.0	mostly	354	39.0	12	25.0
mongrel	364	21.7	16	12.5	moth	311	47.6	11	45.5
	376	30.6	19	5.3	mother	314	59.6	13	23.1
monk	397	74.8	16	50.0	motherhood	302	32.5	12	25.0
monkey	313	49.5	13	23.1	motherless	309	43.0	9	33.3
monster	376	30.3	23	17.4	motherly	397	58.4	13	30.8
monstrous	374	65.5	14	35.7	motion	376	32.2	16	31.3
month	397	45.1	13	15.4	motion	380	47.9	13	38.5
monthly	376	29.0	19	21.1	motionless	291	27.5	5	.0
monument	397	32.2	13	23.1	motive	365	27.9	14	14.3
mood	383	40.5	21	23.8	motor	377	45.6	20	30.0
moon	383	22.2	21	23.8	motor	369	56.9	13	7.7
moonbeam	383	60.3	21	14.3	motorcar	376	58.8	16	31.3
moose	343	38.2	18	22.2	motorist	371	44.2	15	20.0
mop	383	25.8	21	14.3	motto	371	19.4	12	8.3
rope	376	46.5	19	10.5	mound	396	22.2	19	31.6
more	377	28.4	15	20.0	mount	395	40.0	16	31.3
moreover	383	27.7	21	14.3	mount	291	36.8	5	20.0
morgue	363	34.7	13	7.7	mountain	302	67.5	12	16.7
morn	376	63.3	19	21.1	mourn	369	28.5	13	7.7
morning	376	25.0	16	25.0	mournful	390	31.8	17	5.9
moron	307	30.9	14	35.7	mouse	410	66.6	24	37.5
morrow	381	43.3	6	33.3	mouth	371	47.2	16	18.8
mosquito	396	33.3	19	15.8	mouthpiece	320	45.6	7	14.3
MOSS	383	51.2	15	26.7	moveable	371	34.2	16	18.8

WORD	TOTAL		AGE 7	Freq.	WORD	TOTAL		Freq.	AGE 7
	Freq.	%				Freq.	%		
move	396	57.8	19	36.8	mushroom	371	27.2	12	.0
movement	378	34.1	12	16.7	music	320	40.6	7	14.3
move	376	67.0	16	25.0	musician	340	55.6	12	41.7
move	355	29.9	17	17.6	muskrat	341	41.6	12	16.7
move	378	26.5	12	25.0	musket	410	32.0	24	29.2
much	364	49.7	14	7.1	muskrat	313	50.2	13	30.8
mud	364	49.7	14	.0	muss	371	18.6	16	18.8
muddy	390	51.3	17	23.5	muss	410	43.2	24	29.2
muffin	367	33.8	16	18.8	mustache	384	43.8	18	16.7
muffle	367	21.0	16	18.8	mustard	384	52.1	18	50.0
muffler	383	32.9	15	20.0	musty	319	27.9	12	16.7
muffler	378	27.2	13	38.5	mutiny	374	32.4	17	17.6
mug	354	35.0	12	25.0	muter	374	27.5	17	17.6
mulberry	358	44.4	21	38.1	mutton	410	20.7	24	25.0
mule	367	49.0	16	12.5	muzzle	384	25.5	18	22.2
multiply	308	45.8	8	25.0	muzzle	376	22.1	16	25.0
numble	382	37.4	17	11.8	my	362	45.9	16	25.0
nummy	364	44.5	16	25.0	mysterious	379	35.1	5	40.0
numps	378	37.8	12	16.7	mystery	383	52.0	22	18.2
nunch	379	25.9	5	20.0					
murder	367	40.9	16	12.5					
murderer	347	36.0	12	16.7					
murderous	311	29.9	11	27.3					
murmur	305	22.0	13	7.7					
muscular	384	37.5	18	16.7					
museum	320	48.4	9	22.2					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	FREQ.	%	FREQ.	%		FREQ.	%	FREQ.	%
nag	381	19.4	6	16.7	navy	364	30.5	16	25.0
nag	372	24.2	15	13.3	nay	362	24.3	16	12.5
nail	369	45.3	20	15.0	near	358	46.6	21	28.6
naked	363	36.9	13	38.5	nearby	383	46.2	15	26.7
name	390	53.5	16	12.5	nearly	400	49.3	12	25.0
nameless	355	41.7	17	41.2	neat	307	42.0	8	25.0
nap	376	20.2	19	21.1	necessary	367	35.4	16	25.0
nap	397	43.6	13	46.2	necessity	390	36.4	17	41.2
napkin	367	45.2	16	37.5	neck	383	54.8	21	14.3
narcotic	384	27.3	18	22.2	necklace	371	47.4	12	33.3
narrow	402	48.8	18	50.0	necktie	376	41.5	16	18.8
nasty	367	32.7	16	18.8	need	363	39.9	13	30.8
nation	367	53.7	16	12.5	needful	374	35.0	14	28.6
national	367	41.4	16	37.5	needle	384	45.1	18	22.2
nationality	376	40.4	23	13.0	needle	371	19.7	12	8.3
nationwide	371	26.7	12	6.3	needleless	364	39.8	14	28.6
native	364	34.3	14	35.7	needlework	371	42.0	12	33.3
natural	364	41.2	14	14.3	needy	320	31.6	7	42.9
naturalist	366	43.4	17	35.3	neglect	371	28.0	12	8.3
naturally	372	23.1	15	26.7	negro	371	51.5	12	16.7
nature	341	40.2	12	16.7	neighbor	371	51.8	12	16.7
naughty	364	46.4	14	7.1	neighboring	364	43.1	14	14.3
naval	410	39.0	24	29.2	neighberly	377	48.0	15	33.3
navigable	373	32.4	14	28.6	neither	365	52.9	14	21.4
navigate	402	25.1	18	16.7	nephew	378	47.6	12	41.7
navigation	366	30.9	17	41.2	nervous	291	46.0	5	.0
					nervousness	377	41.4	20	25.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	FREQ.	Z	FREQ.	Z		FREQ.	Z	FREQ.	Z
nest	367	74.1	16	25.0	nightingale	307	21.5	3	50.0
nestle	376	27.9	16	6.3	nightly	371	39.4	14	14.3
net	364	47.3	14	21.4	nightmare	307	40.7	8	12.5
network	371	41.0	12	33.3	nine	380	70.5	13	23.1
neutral	367	25.9	16	37.5	nineteen	374	59.6	17	41.2
never	300	45.5	0	25.0	ninety	380	67.1	13	46.2
nevermore	364	56.0	14	35.7	nlwlt	360	38.1	16	31.3
nevertheless	371	30.7	12	0.3	no	383	70.5	21	61.9
new	364	46.7	14	20.6	nobility	395	20.8	16	25.0
newborn	340	56.2	12	33.3	noble	376	26.9	16	37.5
newcomer	371	24.8	12	16.7	nobleman	362	41.2	16	25.0
newfangled	341	18.5	12	25.0	nobleness	383	21.9	21	23.8
news	371	40.0	12	25.0	nobody	376	54.0	16	43.8
newsreel	320	45.6	7	20.6	nod	376	35.9	16	25.0
next	376	52.4	23	30.4	noise	390	54.6	17	17.6
ribble	366	36.3	17	17.6	noiseless	364	39.8	14	21.4
nice	291	59.1	5	20.0	noisy	354	61.3	17	29.4
nick	355	27.3	17	23.5	nominate	354	42.4	17	35.3
nickel	366	64.5	17	17.6	nomination	382	48.4	17	23.5
nickname	340	45.6	12	33.3	nonsense	376	39.6	19	21.1
niece	362	51.4	16	37.5	nook	400	22.3	12	16.7
night	311	60.5	11	27.3	noon	376	71.0	19	36.8
nightcap	377	49.8	20	20.0	noonday	358	41.1	15	40.0
nightfall	390	53.3	17	47.1	noose	311	30.5	11	.0
nightgown	353	40.2	15	26.7	nor	311	39.9	11	27.3
					normal	340	41.8	12	33.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq	Z	Freq	Z		Freq	Z	Freq	Z
north	377	56.0	15	33.3	nozzle	397	24.2	16	18.8
northerly	355	40.6	17	23.5	nudge	397	23.4	16	12.5
northern	360	43.3	16	31.3	nugget	347	23.3	12	16.7
nose	376	64.1	19	21.1	nuisance	347	31.1	12	41.7
nostril	376	47.6	19	42.1	numb	358	28.8	15	6.7
not	376	58.0	19	21.1	number	347	42.7	12	16.7
notable	376	37.0	16	37.5					
notch	398	22.0	16	6.3	numerical	410	33.2	24	20.8
note	376	54.5	16	31.3	numerous	354	37.9	17	11.8
note	340	35.3	12	41.7	nun	396	33.6	19	21.1
notebook	360	47.8	16	37.5	nurse	308	66.2	8	25.0
noted	305	19.7	13	7.7	nursery	398	60.3	21	19.0
notice	397	37.3	16	31.3	nut	364	48.6	16	25.0
notice	378	38.9	12	6.3	nutmeg	395	39.0	16	37.5
noticeable	397	21.2	16	18.8	nutshell	332	38.9	10	40.0
notify	376	34.6	23	30.4					
notion	376	25.8	16	12.5					
noun	383	36.8	22	16.2					
nourish	383	19.1	22	13.6					
nourishment	320	16.6	9	22.2					
novel	399	31.1	11	45.5					
novelist	355	28.7	17	.0					
November	402	76.4	18	33.3					
now	347	52.7	12	41.7					
nowadays	354	48.6	12	25.0					
nowhere	397	42.3	16	12.5					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
oak	398	51.3	16	12.5	occupant	398	29.9	21	28.6
oaken	341	51.6	12	25.0	occupation	390	37.9	16	12.5
oar	402	33.8	18	33.3	occur	379	26.6	5	40.0
oarsman	390	33.6	17	5.9	occurrence	372	26.1	15	13.3
oasis	366	27.6	17	23.5	ocean	364	61.3	14	42.9
oath	340	25.9	12	8.3	October	396	75.3	19	57.9
oath	340	34.1	12	16.7	octopus	371	52.3	16	18.8
oatmeal	369	59.6	20	15.0	odd	374	45.2	14	42.9
oats	366	46.2	17	29.4	odd	343	38.5	18	16.7
obedience	374	35.6	14	57.1	odor	399	23.3	11	9.1
obedient	347	45.0	12	25.0	of	399	42.4	11	36.4
obey	343	52.5	18	27.8	off	374	32.4	14	28.6
object	366	27.0	17	23.5	offend	343	25.7	18	22.2
object	363	38.6	13	15.4	offense	395	28.9	16	25.0
objection	340	22.4	12	16.7	offer	358	32.1	21	23.8
oblige	371	22.6	16	18.8	offering	358	44.7	15	26.7
obliging	378	38.4	13	15.4	offhand	376	32.7	19	31.6
oblong	358	39.1	15	6.7	office	371	65.0	16	25.0
obnoxious	397	31.2	13	30.5	officer	374	53.5	14	21.4
observation	377	30.0	15	26.7	official	354	33.3	12	33.3
observatory	377	34.5	15	26.7	often	340	51.0	12	25.0
observe	377	31.3	15	33.3	oftentimes	394	52.3	16	43.8
observer	307	37.5	14	20.6	oil	371	29.1	15	6.7
obtain	366	25.4	17	23.5	ointment	394	21.3	16	.0
occasion	377	32.4	15	26.7	old	383	60.6	22	22.7
occasional	313	22.4	13	23.1	olden	410	41.7	24	45.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Frq	%	Frq	%		Frq	%	Frq	%
oleomargarine	374	32.4	14	14.3	opposition	374	35.3	14	14.3
olive	371	30.5	14	14.3	or	374	34.0	14	28.6
omelet	347	24.8	12	16.7	orange	343	71.1	10	22.2
omit	303	31.1	22	27.3	orbit	343	26.9	18	22.2
on	374	55.6	14	20.6	orchard	397	36.0	16	18.8
once	374	54.0	14	35.7	orchestra	395	31.6	16	12.5
one	371	45.6	14	.0	orchid	356	27.1	15	20.0
onion	363	62.7	22	13.6	order	371	27.8	14	21.4
onlooker	308	23.4	6	25.0	order	377	50.7	20	10.0
only	356	46.3	15	13.3	order	410	45.6	24	29.2
onward	350	35.2	15	33.3	orderly	302	19.2	12	8.3
ooze	376	30.3	19	10.5	ordinarily	397	32.5	16	25.0
open	374	44.1	14	35.7	ordinary	394	36.0	15	18.8
opening	364	39.6	14	21.4	ore	343	31.5	18	22.2
opera	364	25.0	14	.0	organist	397	49.9	13	32.5
operate	397	37.3	16	43.8	organization	291	41.6	5	20.0
operation	376	41.8	19	15.8	organize	397	26.2	16	18.8
operator	374	41.4	14	14.3	orient	397	24.4	13	46.2
operetta	350	41.1	15	13.3	original	394	27.4	16	37.5
opinion	374	39.6	14	42.9	originate	371	32.1	18	22.2
opossum	399	25.3	11	18.2	oriole	397	37.2	14	.0
opponent	320	36.3	9	22.2	ornament	371	41.1	13	46.2
opportunity	397	28.2	13	38.5	orphan	397	30.7	14	21.4
oppose	399	31.1	11	9.1	orphanage	397	45.1	13	30.8
opposite	376	27.9	19	31.6	ostrich	397	46.6	16	37.5
	343	49.3	10	27.8	otherwise	397	32.5	13	30.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	FREQ	%	FREQ	%		FREQ	%	FREQ	%
other	369	31.7	13	30.8	outnumber	347	42.1	12	8.3
ought	383	52.7	22	27.3	outpost	347	35.4	12	41.7
ounce	347	44.4	12	25.0	outrank	309	21.7	9	.0
our	366	54.9	17	29.4	outrun	343	53.4	18	27.8
ourselves	307	56.4	8	12.5	outside	311	34.7	11	36.4
out	396	61.1	19	31.6	outsider	309	27.2	9	.0
out	307	40.7	14	42.9	outskirts	341	32.0	12	8.3
outbreak	309	28.8	9	22.2	outspread	371	36.9	14	28.6
outcome	379	22.2	5	.0	outstanding	309	36.2	9	33.3
outcry	397	33.5	13	30.8	outstretch	343	28.9	18	11.1
outdo	378	22.5	13	15.4	outward	309	33.0	9	33.3
outer	307	54.4	14	42.9	outweigh	307	38.1	14	21.4
outermost	343	36.4	18	27.8	oval	309	39.5	9	55.6
outfield	398	25.6	21	9.5	oven	362	47.5	16	25.0
outfit	358	38.3	21	42.9	over	332	60.2	10	40.0
outgrow	343	44.3	18	33.3	overboard	362	49.4	16	25.0
outhouse	341	26.7	12	8.3	overcoat	366	62.2	16	43.8
outing	397	33.8	13	7.7	overcrowd	309	27.0	17	29.4
outlast	340	30.9	12	16.7	overdo	360	33.7	9	22.2
outlaw	343	38.8	18	16.7	overdose	376	23.6	16	25.0
outlaw	307	36.8	14	28.6	overeat	343	39.6	16	31.3
outlet	354	47.7	12	41.7	overestimate	397	35.0	18	11.1
outline	343	36.2	18	50.0	overflow	390	46.9	13	38.5
outlive	374	46.5	17	35.3	overgrown	390	41.8	17	11.8
outlook	371	29.4	14	7.1	overhang	390	24.1	17	5.9
					overhead	376	53.5	19	36.8

WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z
overhead	343	26.8	18	27.8
overjoy	376	55.1	19	26.3
overland	376	43.6	19	26.3
overlap	376	24.5	16	31.3
overlook	343	60.6	10	16.7
overly	404	23.0	13	23.1
overmuch	378	32.0	13	15.4
overnight	376	45.7	16	37.5
overpass	376	40.7	19	10.5
overpower	347	47.3	12	16.7
overshadow	376	19.9	19	.0
overshoe	376	63.0	19	10.5
overspread	371	44.7	16	12.5
overthrow	397	36.3	13	15.4
overtime	374	42.5	10	16.7
overturn	347	47.8	12	25.0
overweight	399	49.4	11	.0
overwork	307	47.9	8	25.0
owe	378	35.7	12	25.0
owl	309	76.1	9	66.7
own	311	49.2	11	27.3
owner	396	44.2	19	42.1
ownership	309	49.2	9	55.6
ox	343	45.5	10	27.6
oxford	343	23.9	10	11.1
oxygen	364	50.0	14	21.4
oyster	367	40.5	16	25.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
pace	371	23.5	14	14.3	pane	363	26.4	13	30.8
pace	340	21.8	12	25.0	panel	371	23.5	14	7.1
pack	372	31.7	15	13.3	pangs	366	37.4	17	11.8
package	371	41.8	14	14.3	panic	373	24.9	14	28.6
pad	376	32.7	16	25.0	pansy	369	30.9	20	15.0
paddle	376	26.1	16	12.5	pant	375	28.5	15	33.3
padlock	313	26.2	13	15.4	pantaloen	380	23.2	13	23.1
padre	383	31.9	21	23.8	panther	382	28.0	17	11.8
page	355	68.5	17	17.6	pantomime	320	27.5	7	.0
pageant	379	30.3	5	.0	pantry	319	23.8	12	8.3
pall	319	55.2	12	41.7	pape	360	54.7	16	25.0
palm	369	46.9	13	15.4	pepote	364	41.1	18	11.1
painful	320	44.1	9	33.3	parade	369	59.1	20	35.0
paint	377	68.2	15	53.3	paradise	340	31.8	12	16.7
painting	369	62.9	13	30.8	paragaph	364	47.5	16	6.3
pair	369	50.9	13	15.4	parallel	397	25.4	16	18.8
pajamas	382	56.5	17	23.5	paralytic	332	22.9	10	20.0
pal	377	45.6	20	10.0	paralyzed	397	40.8	16	37.5
palace	378	38.6	13	23.1	parasol	364	15.7	16	43.8
pale	369	32.8	20	35.0	paratrooper	371	31.3	15	20.0
palm	394	29.4	16	31.3	parboll	371	34.0	12	25.0
palm	313	47.3	13	30.8	parcel	291	37.5	5	.0
pamphlet	379	17.7	5	40.0	pardon	410	35.9	24	33.3
pan	366	61.2	17	23.5	parent	363	29.8	13	30.8
pancake	354	73.7	17	29.4	park	373	66.2	14	42.9
						363	48.8	13	30.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
peaceful	577	35.8	15	20.0	penalty	308	39.0	8	12.5
peach	374	64.7	17	35.3	pencil	395	65.0	16	37.5
peacock	397	36.5	13	46.2	penguin	390	45.1	17	41.2
peak	372	29.8	15	33.3	peninsula	363	36.4	13	23.1
peanut	398	62.6	16	12.5	penitentiary	358	20.5	21	23.8
pear	383	69.2	21	28.6	penknife	308	42.9	8	12.5
peasant	308	28.6	8	12.5	penmanship	341	42.6	12	25.0
pebble	383	32.6	15	40.0	penniless	311	38.9	11	16.2
pecan	372	49.7	15	46.7	penny	375	71.2	15	46.7
peck	383	37.1	22	27.3	people	371	61.7	16	25.0
peck	366	22.7	17	23.5					
peculiar	307	35.2	8	12.5	peppermint	302	46.3	12	50.0
peculiarity	394	42.1	16	43.8	percentage	305	32.1	13	15.4
pedal	354	25.4	12	41.7	perch	396	29.5	19	36.8
peddle	371	19.4	12	8.3	perch	302	20.9	12	16.7
peddler	383	39.9	21	28.6	percolate	332	20.5	10	10.0
pedestrian	358	23.7	21	23.8	perfect	354	40.4	17	11.0
peek	340	35.3	12	33.3	perfection	341	44.6	12	8.3
peel	319	43.9	12	25.0	perform	395	26.8	16	18.8
peep	402	34.8	18	50.0	performer	383	30.0	15	46.7
peer	377	23.9	20	15.0	performance	364	34.6	16	18.8
peg	305	27.9	13	7.7	perfume	369	42.0	20	5.0
pelican	402	36.1	18	16.7	perhaps	369	42.0	20	35.0
pelt	354	27.4	12	33.3	period	373	50.1	14	21.4
pen	378	26.5	13	30.8	periscope	364	42.9	16	31.3
penalize	308	30.2	8	12.5	perk	314	18.5	13	15.4

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	PRG1	7	PRG1	7		PRG1	7	PRG1	7
parlor	308	27.3	8	.0	pasture	302	32.5	17	11.8
parole	319	26.3	12	.0	pat	399	21.1	11	10.2
parrot	358	58.1	15	40.0	patch	358	36.3	15	13.3
parsley	383	25.1	21	14.3	patchwork	410	36.1	24	33.3
parsnip	360	25.8	16	25.0	patent	394	26.4	16	18.8
parson	358	31.6	21	28.6	path	378	33.3	12	25.0
part	314	60.8	13	38.5	pathway	347	42.9	12	25.0
partake	398	34.4	15	12.5	patience	302	32.2	17	29.4
particle	291	27.1	5	20.0	patient	372	44.9	15	26.7
particular	383	36.8	22	18.2	patriot	347	30.5	12	50.0
particularly	305	42.6	13	15.4	patriotic	372	43.5	15	26.7
partly	305	23.0	13	15.4	patriotism	369	26.0	20	15.0
partner	410	39.5	24	33.3	patrol	300	34.7	8	37.5
partnership	309	27.2	9	11.1	patrolman	341	46.4	12	33.3
party	376	64.9	19	10.5	patter	296	22.6	10	20.0
pass	369	43.1	20	25.0	patty	300	10.8	8	12.5
passage	370	22.2	13	15.4	pause	365	29.0	14	26.6
passenger	309	38.2	9	55.6	pave	363	34.7	13	7.7
passport	369	35.5	20	40.0	pavement	341	39.3	12	33.3
past	371	35.0	16	25.0	paw	363	55.9	13	38.5
paste	383	51.4	21	19.0	pawn	395	24.8	16	43.8
pasteboard	311	50.8	11	27.3	pawnbroker	374	25.4	14	14.3
pastel	369	29.3	20	10.0	pay	369	64.2	20	40.0
pasteurized	383	37.1	22	22.7	payment	291	55.7	5	.0
pastime	305	33.8	13	15.4	pea	372	59.1	15	20.0
pastor	305	40.7	13	23.1	peace	303	51.4	21	28.6
	305	34.1	13	30.8	peaceable	341	40.2	12	16.7

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	FREQ.	Z	FREQ.	Z		FREQ.	Z	FREQ.	Z
permanent	367	17.2	16	13.8	phonograph	319	52.0	12	33.3
permissible	374	43.0	14	28.6	photo	371	47.7	14	21.4
permit	291	39.9	5	40.0	photograph	307	51.8	8	50.0
persecute	314	22.6	13	15.4	photographer	364	52.7	14	28.6
persecution	360	32.2	16	31.3	phrase	291	44.7	5	.0
persist	375	33.6	15	13.3	physical	372	40.1	15	13.3
persistence	371	40.4	15	20.0	physician	302	39.7	12	33.3
person	374	63.6	14	57.1	physics	397	36.8	16	37.5
personality	311	33.1	11	18.2	planist	369	34.4	13	23.1
perspiration	374	24.1	17	23.5	pick	341	18.8	12	.0
perspire	366	22.4	17	17.6	pick	311	48.6	11	45.5
persuade	404	27.2	13	15.4	picket	379	32.7	5	40.0
persuasion	374	35.6	14	28.6	pickle	369	48.0	20	15.0
perturbed	397	22.9	13	23.1	picnic	374	46.0	14	28.6
pessimistic	397	24.4	16	25.0	pickpocket	371	25.3	15	6.7
pest	400	28.5	12	25.0	picture	374	71.7	14	28.6
pester	340	23.8	12	33.3	piece	369	52.0	20	10.0
pet	347	70.0	12	16.7	plier	354	20.6	12	.0
petal	394	42.4	16	37.5	plce	363	21.9	15	40.0
petrify	365	18.1	14	42.9	pierce	313	75.7	13	53.8
petroleum	313	30.4	13	23.1	pige	371	43.4	15	20.0
petticoat	305	24.6	13	15.4	pigeon	371	45.6	24	20.8
pew	307	25.7	14	42.9	piggy	410	37.5	14	21.4
phantom	369	28.7	13	.0	pigtail	371	32.2	20	35.0
phone	364	62.4	14	21.4	pike	369	25.2	12	33.3
					pike	341	23.7	16	31.3
					pile	371	50.9	5	.0
					pile	291	29.7	12	16.7
					pilgrim	347			

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
pill	343	53.4	18	15.7	pity	311	33.1	11	36.4
pillar	340	19.1	12	8.3	place	397	40.1	13	7.7
pillow	367	50.4	16	12.5	plague	307	27.7	8	37.5
pimple	367	26.7	16	25.0	plaid	332	30.7	10	.0
pin	376	54.8	16	50.0	plain	320	36.6	9	.0
pinafore	320	20.6	9	11.1	plain	307	42.7	8	12.5
pinch	383	31.9	22	9.1	plan	402	44.0	18	16.7
pine	320	56.9	9	33.3	plane	367	26.7	16	18.8
pineapple	366	62.3	17	23.5	plane	378	70.1	13	46.2
pink	364	73.4	16	37.5	planet	364	39.0	14	21.4
pint	369	46.9	20	10.0	plank	320	25.9	7	14.3
pioneer	379	36.7	5	.0	plant	307	48.2	8	12.5
pipe	404	36.1	13	53.8	plantation	320	45.3	9	44.4
pipec	395	28.9	16	37.5	planter	341	49.9	12	33.3
piracy	374	28.3	14	23.6	plastic	377	45.1	15	20.0
pirate	364	35.2	16	31.3	plate	367	61.3	16	25.0
pistol	404	34.9	13	15.4	plate	340	42.1	12	25.0
plt	371	30.2	12	15.7	plateau	377	37.7	20	15.0
pitch	379	18.7	5	.0	platform	355	36.3	17	35.3
pitch	340	40.0	12	16.7	platter	372	22.6	15	13.3
pitch	319	28.2	12	50.0	play	374	73.0	14	28.6
pitcher	319	35.1	12	6.3	player	343	41.4	18	27.8
pitchfork	380	33.9	13	23.1	playful	377	59.2	20	10.0
piteous	377	34.7	15	6.7	playground	383	62.7	21	23.8
pitiable	378	36.5	12	33.3	playhouse	410	41.2	24	25.0
pitiful	383	40.5	21	23.8	playmate	373	48.8	14	7.1
pitiless	360	33.3	16	25.0	plaything	305	76.1	13	30.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	FLUQ	7	FLUQ	7		FLUQ	7	FLUQ	7
playwright	296	20.9	10	30.0	pneumonia	377	30.5	20	20.0
plead	302	32.1	12	16.7	pnach	305	23.6	13	15.4
pleasant	383	47.5	21	9.5	pocket	369	60.4	20	40.0
pleasantness	374	41.4	14	28.6	pocketbook	374	53.5	14	28.6
please	307	56.4	8	-0	pod	365	20.0	14	28.6
pleasing	374	39.0	18	16.7	poetry	369	43.4	20	28.0
pleasure	372	44.4	15	6.7	point	374	42.8	14	28.6
pleasurable	341	42.2	12	33.3	poisonous	363	46.6	13	30.8
pledge	332	50.6	10	40.0	poke	369	38.2	20	45.0
plentiful	347	30.5	12	25.0	poker	360	16.7	16	18.8
plenty	377	31.3	20	10.0	polar	377	53.9	12	41.7
pliers	305	26.9	13	7.7	pole	311	34.4	11	36.4
plot	320	35.9	7	42.9	police	371	43.7	12	33.3
plot	305	32.1	13	30.8	policeman	371	73.0	14	35.7
plow	398	43.5	21	26.6	policy	377	23.3	20	15.0
plowman	396	48.7	19	5.3	polish	358	51.4	21	23.8
pluck	341	30.5	12	41.7	political	400	39.3	12	25.0
plug	396	34.2	16	37.5	politician	362	40.8	17	11.8
plum	377	61.5	20	10.0	politics	377	25.2	20	25.0
plumber	398	44.5	21	9.5	polka	377	30.0	20	35.0
plumbing	374	39.6	18	33.3	pollen	377	36.1	20	10.0
plume	373	17.2	14	28.6	pond	375	60.0	15	20.0
plump	373	31.6	14	21.4	pony	320	75.6	7	42.9
plunge	319	32.6	12	41.7	poodle	308	51.0	8	37.5
plural	378	38.6	13	23.1	pool	307	71.0	8	25.0
plus	320	47.2	7	28.6	pool	340	47.6	12	25.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	7	Freq.	7		Freq.	7	Freq.	7
poor	305	45.9	13	7.7	possibility	363	43.8	13	30.8
poorhouse	399	57.1	11	45.5	possum	307	25.7	14	21.4
poorman	374	57.8	14	28.6	post	354	31.9	17	17.6
poor	410	38.8	24	33.3	postage	314	48.7	13	38.5
poorly	291	35.4	5	20.0	postal	384	41.7	18	44.4
popular	347	43.8	12	41.7	postcard	379	48.0	5	.0
popularity	296	41.2	10	20.0	poster	302	28.5	12	25.0
populated	363	34.7	13	30.8	postman	307	72.0	14	57.1
population	374	42.8	14	35.7	postmaster	314	57.0	13	38.5
pot	319	36.1	12	16.7	postpone	307	20.2	14	28.6
potato	296	25.0	10	20.0	postscript	374	50.3	14	28.6
pot	373	62.5	14	28.6	posture	377	33.4	15	6.7
potatoes	341	28.7	12	16.7	posy	341	36.4	12	33.3
pot	375	38.4	15	40.0	pot	378	47.4	13	23.1
port	360	35.6	16	31.3	potato	291	82.5	5	.0
portable	400	33.3	12	33.3	potter	371	31.0	12	16.7
porter	308	30.2	8	37.5	pouch	364	29.1	16	6.3
portable	404	18.1	13	15.4	poultry	319	28.5	12	25.0
portion	383	25.3	22	13.6	pounce	396	32.8	19	42.1
portion	340	22.1	12	25.0	pound	394	51.8	16	43.8
positive	341	23.8	12	16.7	pound	302	21.9	12	25.0
posse	364	26.9	14	28.6	pour	308	43.5	8	12.5
possession	341	47.8	12	25.0	post	305	29.8	13	15.4
possession	341	39.9	12	41.7	powdery	340	29.1	12	8.3
possessive	383	28.5	22	22.7	power	374	26.2	14	14.3
possessor	367	41.4	16	18.8	powerful	373	53.6	14	14.3
possible	369	45.0	13	23.1	powerless	354	43.2	17	17.6

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Proc.	Z	Proc.	Z		Proc.	Z	Proc.	Z
practice	332	44.9	10	.0	presentable	332	13.9	10	.0
prairie	354	31.6	17	17.6	preservation	404	31.9	13	30.8
praise	404	34.7	13	15.4	preserve	380	50.8	13	7.7
praiseworthy	311	35.7	11	18.2	preserver	367	32.2	16	6.3
prance	340	28.8	12	16.7	preserves	311	29.3	11	.0
prank	366	25.1	17	17.6	presidency	382	45.0	17	29.4
pray	311	76.2	11	45.5	president	308	47.1	8	12.5
preach	340	32.1	12	8.3	press	307	45.6	14	21.4
preacher	307	45.0	14	35.7	pressure	305	33.4	13	15.4
precaution	291	23.0	5	.0	presto	375	30.9	15	33.3
precious	374	37.2	17	35.3	presume	343	44.6	18	44.4
predict	396	28.1	16	31.3	pretend	402	33.6	18	33.3
prediction	374	31.3	17	11.8	pretty	398	44.5	16	31.3
prefer	365	25.8	14	42.9	prevent	308	40.3	8	37.5
preference	355	29.9	17	29.4	preview	314	34.4	13	30.8
pregnant	363	30.6	13	53.8	previous	296	31.1	10	10.0
prejudice	399	33.3	11	27.3	prey	381	28.3	6	50.0
prehistoric	358	36.6	21	42.9					
prepaid	354	35.0	17	.0	prickly	371	39.9	14	14.3
preparation	369	27.1	13	15.4	priest	383	43.3	15	13.3
preparatory	371	23.2	14	14.3	primary	332	34.0	10	30.0
prepare	314	36.3	13	7.7	primrose	397	33.5	16	43.8
prescribe	358	18.2	21	14.3	prince	397	50.6	16	37.5
prescription	398	17.3	21	14.3	princely	367	40.6	16	25.0
present	369	34.1	20	30.0	princess	354	52.3	17	11.8
					principal	377	46.9	15	46.7

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
principle	354	29.4	17	29.4	program	374	35.6	18	11.1
print	314	52.2	13	23.1	progress	320	50.9	7	28.6
printer	314	47.8	13	23.1	progressive	371	52.6	14	35.7
prison	307	54.4	14	35.7	prohibit	332	33.7	10	30.0
prisoner	369	43.9	20	35.0	project	313	23.6	13	30.6
privacy	404	25.7	13	15.4	promenade	383	18.8	22	9.1
private	365	26.0	14	14.3	promote	320	24.7	9	44.4
private	307	34.2	14	21.4	promotion	320	21.9	7	57.1
prize	307	46.3	14	42.9					
probable	296	26.7	10	.0	pronoun	314	33.4	13	15.4
probably	375	28.0	15	13.3	pronounce	372	34.4	15	33.3
problem	291	52.6	5	.0	pronunciation	371	27.8	15	13.3
proceed	374	26.7	18	38.9	prosperous	377	31.0	15	20.0
process	305	41.3	13	15.4	protect	404	44.1	13	15.4
procession	400	24.5	12	8.3	production	398	36.9	16	25.0
produce	400	30.0	12	33.3	proof	362	30.9	16	37.5
produce	371	37.7	16	18.8	prop	314	42.7	13	23.1
producer	358	33.0	15	6.7	proper	314	35.7	13	15.4
					property	305	25.2	13	15.4
					proposal	371	22.4	16	6.3
productive	371	51.8	16	31.3	propose	382	16.2	17	17.6
profession	398	32.7	16	25.0	prospect	320	27.2	7	28.6
professional	378	43.9	12	25.0	prospector	377	20.2	20	15.0
professor	334	29.5	10	50.0					
profit	320	20.6	9	11.1					
profitable	377	19.1	15	.0					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
proud	314	52.5	13	23.1	punctuate	314	27.1	13	7.7
prove	363	44.6	13	23.1	punctuation	364	28.3	16	18.8
provide	347	28.5	12	16.7	puncture	355	24.2	17	5.9
provoke	390	21.5	17	23.5	punishable	291	44.0	5	.0
prowl	355	23.7	17	17.6					
prune	319	47.6	12	25.0	puppy	378	78.0	13	61.5
prune	307	21.2	8	.0	purchase	358	30.2	21	19.0
pry	410	28.5	24	37.5	purchaser	358	32.7	21	23.8
public	404	43.8	13	30.8	pure	332	29.5	10	30.0
publicity	376	29.8	16	31.3	purify	364	20.6	16	6.3
publish	396	31.6	19	36.8	purity	354	26.0	12	25.0
publisher	340	42.9	12	8.3	purple	291	77.0	5	.0
pull	314	30.6	13	23.1	purplish	358	44.1	21	23.8
pulley	410	42.2	24	37.5	purposely	371	38.5	16	31.3
pulpit	410	32.9	24	20.8	purse	371	60.1	16	31.3
pulse	358	32.7	15	33.3	pursuit	375	23.2	15	13.3
pump	320	45.6	9	44.4	push	343	58.6	18	27.8
pumpkin	314	64.0	13	38.5	pusy	354	57.1	17	17.6
punch	311	35.0	11	9.1	put	377	44.0	15	33.3
					pyramid	410	29.8	24	25.0

WORD	TOTAL				WORD	TOTAL			
	Pos	1	2	3		Pos	1	2	3
quail	399	40.4	11	50.5	quite	302	33.4	0	25.0
quaint	343	21.3	10	5.6	quiver	320	18.4	7	16.3
qualification	371	32.6	16	12.5	quote	302	23.5	13	41.7
qualify	307	30.6	14	28.6	quotient	396	25.1	21	28.6
quality	400	21.0	12	16.7		356	29.3	21	14.3
quantity	371	25.6	16	12.5					
quarantine	363	27.8	15	23.1					
quarrel	347	29.7	12	33.3					
quarrelsome	302	38.4	12	33.3					
quart	410	44.6	24	12.5					
quarter	402	46.8	18	27.8					
quarterback	399	42.1	11	36.4					
quartet	302	37.4	12	25.0					
queen	302	62.6	17	35.3					
queenly	354	25.4	17	11.8					
queer	309	43.4	9	39.3					
question	354	57.9	12	39.3					
quick	398	56.0	21	28.6					
quickly	362	57.5	16	31.3					
quickness	371	39.1	14	28.6					
quicksand	308	45.5	8	50.0					
quicksilver	377	36.3	20	15.0					
quiet	360	53.1	16	23.0					
quietness	302	38.5	17	23.5					
quill	347	25.1	12	16.7					
quilt	371	24.3	12	8.3					
quit	371	46.9	14	14.3					

WORD	TOTAL		AGE 7	WORD	TOTAL		AGE 7
	Req.	Freq.			Req.	Freq.	
rabbit	375	72.8	15	rainy	396	64.4	19
rabbit	343	29.7	18	raise	374	40.6	14
raccoon	396	63.6	19	raisin	371	50.9	16
rabies	362	26.8	16	rake	302	41.4	12
race	343	70.0	18	rally	302	27.5	12
racer	296	58.8	10	ram	363	34.4	13
rack	363	39.4	13	ram	291	30.9	5
racket	375	23.5	15	ramrod	354	35.0	12
rader	379	42.0	5	ranch	354	50.0	12
radiance	364	31.3	16	rancher	354	56.8	12
radiant	363	28.4	13	range	314	32.5	13
radiate	369	23.6	13	ranger	371	32.3	14
radioactive	363	36.9	13	ransom	377	33.4	20
radish	343	41.4	10	rap	332	21.7	10
raft	398	38.9	16	rapid	363	39.1	13
rag	358	49.7	21	rapidly	363	40.2	13
rage	371	32.6	16	rapidity	398	32.2	16
ragged	399	39.3	11	rare	369	27.4	20
ragtime	343	27.7	18	rascal	398	29.6	16
raid	358	27.7	15	rash	296	29.7	10
rail	358	32.4	21	rasp	366	29.8	17
railroad	371	70.4	16	raspberry	332	54.5	10
railway	305	65.9	13	rat	396	67.1	16
raiment	371	30.2	15				
rain	383	68.7	21				
rainbow	383	60.8	21				
rainfall	320	50.9	9				

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Frq.	f	Prq.	f		Frq.	f	Prq.	f
rate	371	37.2	12	41.7	reaper	305	26.2	13	23.1
rather	371	36.7	12	8.3	rear	375	31.7	15	40.0
rattle	390	30.0	17	.0	rear	371	24.9	16	31.3
rattle	302	38.7	12	8.3	rearrange	343	38.2	18	38.9
rattlesnake	375	31.5	15	26.7	reason	364	31.6	14	21.4
rave	394	25.4	16	18.8	reasonable	363	45.5	13	15.4
raven	371	21.8	12	.0	rebel	376	37.2	23	26.1
ravenous	402	26.6	18	44.4	rebel	360	42.2	16	36.3
ravine	305	26.6	13	15.4	rebound	354	26.3	12	8.3
raw	395	39.7	16	25.0	rebuild	305	39.7	13	23.1
rawhide	400	35.3	12	16.7	recall	354	28.5	12	8.3
ray	390	34.1	17	29.4	recap	376	28.2	23	21.7
razor	305	31.8	13	15.4	recapture	374	34.8	18	16.7
reach	305	41.0	13	15.4	receive	377	37.4	15	33.3
react	374	44.1	18	16.7	receiver	354	41.8	12	8.3
reaction	305	31.1	13	15.4	recent	376	28.2	19	35.8
read	358	54.5	15	13.3	recess	398	50.0	16	25.0
reader	302	64.7	12	33.3	recipe	307	42.7	14	50.0
readily	308	47.4	8	25.0	recital	371	38.5	16	18.8
readiness	399	50.6	11	36.4	recitation	394	47.0	16	25.0
ready	402	46.3	18	50.0	recite	320	37.5	9	44.4
real	402	55.0	18	27.8	reckless	375	30.4	15	20.0
really	320	50.3	7	28.6	reckon	343	29.2	18	22.2
realization	377	60.6	20	20.0	reclaim	354	39.0	12	16.7
realize	383	38.6	15	20.0	recognition	355	44.5	17	23.5
realtor	305	15.1	13	.0	recognize	347	27.1	12	8.3
reap	363	22.6	13	15.4					

WORD	TOTAL			WORD	TOTAL		
	Freq.	%	AGE 7		Freq.	%	AGE 7
recollect	383	33.9	22	reflector	320	35.6	7
recollection	383	25.1	15	reform	377	32.1	15
recommend	366	26.5	17	reform	375	30.7	15
reconsider	358	31.3	21	refresh	402	42.0	18
reconstruct	371	29.1	15	refreshments	394	41.4	16
record	374	36.6	17	refrigerator	394	60.2	16
recorder	358	40.2	15	refugee	358	34.1	21
recorder	371	27.5	16	refund	398	29.9	16
recount	354	36.2	12	refusal	394	37.3	16
recover	376	34.9	13	refuse	305	35.7	13
recovery	364	25.0	16	regain	397	43.8	16
rectangular	404	18.8	13	regard	376	24.7	19
red	320	85.0	9	regardless	347	32.3	12
red den	354	27.7	12	region	354	33.1	12
reddish	358	31.8	21	register	383	28.7	21
redskin	374	54.5	17	register	379	31.3	5
reduce	369	29.3	13	register	366	19.1	17
redwood	377	62.6	15	register	332	34.0	10
reed	377	29.2	15	register	397	41.3	13
reel	381	25.7	6	regret	354	39.1	16
reel	362	26.8	16	regretful	380	47.1	13
referee	291	35.1	5	regular	394	22.8	16
reference	307	38.1	8	regulation	371	36.9	14
refill	366	42.1	17	rehearsal	347	26.5	12
refine	383	28.7	15	rehearse	374	42.0	18
refinery	377	28.9	15	reheat	364	36.0	14
reflect	394	26.9	16	reign			
reflection	402	21.9	18				

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Fr. 1	7	Fr. 5	7		Fr. 4	7	Fr. 4	7
rein	394	29.7	16	43.8	remedy	308	32.5	8	50.0
reindeer	400	55.8	12	33.3	remember	319	37.0	12	16.7
rejoice	363	33.6	13	23.1	remembrance	399	34.6	11	18.2
rejoicing	378	35.7	12	16.7	remind	404	44.8	13	15.4
rejoin	364	39.0	14	7.1	reminder	365	47.4	14	28.6
relapse	371	28.8	15	33.3	remodel	307	29.6	8	12.5
relate	355	27.9	17	29.4	removal	364	34.9	14	21.4
relate	397	30.5	13	38.5	remove	398	42.7	16	10.8
relation	398	45.0	21	23.8	renew	383	35.2	21	33.3
relationship	379	43.5	5	40.0	renewal	319	22.6	12	41.7
relative	364	45.9	16	43.8	rent	371	56.1	14	26.6
relax	340	30.0	12	25.0	renter	374	35.6	17	11.8
relaxation	374	37.4	18	5.6	reopen	369	27.9	13	30.8
relay	314	37.6	13	30.8	reorganize	358	45.3	15	33.3
release	379	34.3	5	80.0	repair	398	43.0	16	31.3
reliable	313	24.0	13	38.5	repay	308	41.9	8	37.5
relief	381	31.0	6	50.0	repeat	311	38.9	11	54.5
relieve	383	35.5	21	28.6	replace	396	33.3	19	10.5
relieve	399	35.3	11	.0	replacem ^{nt}	358	49.4	21	66.7
religion	362	41.4	16	31.3	reply	379	30.3	5	20.0
religious	302	38.7	12	33.3	report	363	64.9	13	30.6
relish	309	35.6	9	22.2	reporter	341	48.7	12	16.7
reload	381	32.8	6	33.3	represent	354	18.1	12	16.7
remain	308	35.1	8	50.0	reprint	363	41.9	13	38.5
remainder	320	30.0	9	22.2	Republican	308	45.8	8	12.5
remark	371	27.0	16	31.3	repulsive	398	29.1	16	6.3
remarkable	291	33.3	5	40.0					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	REQ	%	REQ	%		REQ	%	REQ	%
request	341	28.2	12	33.3	responsibility	340	30.0	12	8.3
require	376	34.8	19	21.1	responsible	374	36.6	17	35.3
requirement	319	35.1	12	25.0	rest	369	61.5	20	30.0
rescue	367	31.3	16	37.5	restaurant	332	49.7	10	20.0
rescuer	371	28.6	16	12.5	restless	311	50.5	11	36.4
research	305	28.5	13	23.1	restlessness	396	42.7	19	26.3
resemblance	364	27.2	14	14.3	result	373	32.4	14	21.4
resemble	382	30.9	17	29.4	retail	374	28.3	14	28.6
resent	296	19.6	10	.0	retake	314	32.5	13	23.1
resentful	369	23.3	13	15.4	retire	371	37.5	15	20.0
resentment	383	21.4	15	33.3	retire	377	33.2	15	66.7
reservation	302	16.9	12	8.3	retrace	320	36.9	9	33.3
reserve	376	22.6	16	18.8	retreat	374	41.2	14	50.0
reserve	307	33.9	14	35.7	return	377	55.2	20	25.0
reservoir	371	29.4	16	25.0	reunion	303	30.5	15	20.0
residence	362	21.7	17	23.5	reveal	364	24.2	16	6.3
resident	365	29.9	14	.0	revenge	314	31.2	13	23.1
resign	376	30.1	19	26.3	reversal	343	14.9	10	22.2
resort	364	23.1	14	28.6	reverses	376	31.4	23	13.0
resound	309	37.2	9	22.2	review	376	51.3	19	26.3
resources	376	22.1	23	26.1	revise	354	25.0	17	35.3
respect	374	35.0	17	35.3	revisit	307	36.2	8	25.0
respectable	371	33.7	15	6.7	revolt	311	33.4	11	27.3
respectful	376	36.2	23	21.7	revolution	410	27.8	24	37.5
respecting	397	38.5	16	18.8	revolve	320	35.6	7	42.9
respiration	373	43.2	14	28.6	revolver	375	43.7	15	20.0
respond	313	31.3	13	38.5	reward	340	34.7	12	33.3
response	381	21.0	6	16.7					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Frq.	%	Frq.	%		Frq.	%	Frq.	%
rewrite	399	29.3	11	45.5	rind	314	27.7	13	15.4
rheumatism	320	49.4	9	11.1	ring	360	55.8	16	31.3
rhinoceros	394	42.1	16	18.8	ringleader	381	30.2	6	66.7
rhubarb	319	22.3	12	8.3	ringlet	373	35.9	14	21.4
rhyme	296	45.6	10	30.0	rink	373	30.8	14	14.3
rhythm	381	39.4	6	16.7	rinse	379	35.1	5	.0
rib	307	51.1	8	25.0	riot	355	37.2	17	29.4
ribbon	399	38.8	11	.0	rip	340	41.2	12	16.7
rice	364	59.3	16	18.8	ripe	371	28.3	12	41.7
rich	394	59.6	16	25.0	ripen	376	29.5	16	6.3
riches	302	36.1	12	.0	ripeness	320	38.1	9	33.3
richness	332	31.0	10	20.0	ripple	303	20.5	8	.0
rickety	332	32.8	10	30.0	rise	378	42.3	13	15.4
rid	365	27.7	14	28.6	risk	320	35.6	9	22.2
riddance	383	29.5	15	26.7	risky	369	38.8	13	7.7
riddle	320	38.8	9	22.2	rival	332	25.9	10	40.0
ride	394	56.1	16	37.5	rivalry	371	19.4	14	.0
rider	355	47.6	17	35.3	river	394	58.9	16	31.3
ridge	369	28.7	20	25.0	riverside	309	36.9	9	22.2
ridiculous	398	26.6	16	12.5	rivet	371	30.7	14	14.3
rifle	320	40.6	7	28.6	roach	373	23.6	14	14.3
rig	369	28.7	20	20.0	road	377	26.8	15	33.3
rigging	340	27.6	12	16.7	roadblock	371	63.1	14	7.1
right	379	52.2	5	.0	roadway	354	42.4	17	29.4
rightful	371	35.0	14	14.3	roam	291	66.7	5	.0
rigid	311	30.2	11	9.1	roar	343	29.2	18	16.7
rim	397	33.5	16	43.8		404	44.3	13	23.1

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	First	%	Freq.	%		First	%	Freq.	%
roast	320	46.6	9	33.3	rose	379	68.6	5	40.0
rob	404	37.4	13	23.1	rot	379	33.2	5	20.0
robber	332	42.5	10	20.0	rotate	354	25.7	17	35.3
robbery	381	44.6	6	16.7	rotten	376	39.1	19	26.3
robe	364	36.3	16	25.0	rouge	398	32.9	21	19.0
robin	291	77.0	5	.0	rough	360	45.8	16	31.3
robot	332	41.3	10	10.0	roughness	332	38.9	10	10.0
rock	383	34.7	22	18.2	round	383	18.3	15	13.3
rocky	311	34.7	11	18.2	round	404	56.7	15	23.1
rod	360	31.1	16	6.3	roundup	374	20.3	17	23.5
rodeo	371	40.4	14	7.1	rouse	362	25.4	16	37.5
role	378	27.2	12	25.0	route	309	57.3	9	33.3
roll	365	45.1	17	17.6	routine	340	21.8	12	16.7
romance	376	35.9	13	23.1	rove	332	25.9	10	30.0
romantic	390	36.5	17	17.6	rover	371	32.0	14	7.1
ramp	374	23.5	18	11.1	row	374	42.5	18	11.1
rompers	376	33.0	23	26.1	rowboat	363	32.6	22	9.1
roof	379	54.4	5	20.0	rowdy	362	21.6	16	12.5
roofing	360	56.6	13	15.4	rower	381	33.1	6	16.7
roommate	307	53.7	8	.0	royal	380	38.7	13	15.4
roomy	320	34.1	9	33.3	royalty	383	42.8	22	9.1
roost	364	33.5	16	12.5	rub	374	39.3	18	16.7
rooster	349	64.7	12	33.3	rubbish	377	27.3	20	20.0
root	364	58.8	16	18.8	ruby	383	28.7	22	4.5
root	374	22.7	17	29.4	rudder	374	28.3	18	22.2
rooter	380	35.5	13	.0	ruffian	377	32.1	20	15.0
rope	376	44.7	16	25.0	ruffle	371	41.2	14	16.3

WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z
rug	314	67.2	13	38.5
rugged	377	22.5	20	15.0
ruin	383	38.6	22	22.7
rule	378	42.3	13	.0
ruler	356	27.7	15	13.3
ruler	374	28.9	18	16.7
rum	377	25.5	20	10.0
rumor	383	29.2	22	27.3
rubble	341	34.9	12	16.7
rubble	371	29.1	15	26.7
rubble	377	25.5	20	25.0
rumpus	377	30.0	20	30.0
run	374	21.4	18	16.7
run	374	44.1	18	27.8
runway	374	25.1	18	5.6
rush	374	43.3	18	27.8
rusic	309	26.9	9	22.2
ryc	374	48.9	18	22.2

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Fr.	2	Fr.	2		Fr.	2	Fr.	2
sack	347	50.4	12	33.3	saloon	311	31.5	11	27.3
sacred	347	21.0	12	16.7	salt	366	32.5	17	23.5
sacrifice	347	21.6	12	6.3	salty	396	42.9	19	26.3
sad	319	78.7	12	25.0	salute	358	28.8	21	19.0
sadden	307	45.3	14	50.0	salvation	371	39.1	15	40.0
saddle	343	45.8	18	27.8	salve	372	30.9	15	26.7
sadness	343	55.1	18	27.8	same	347	47.0	12	25.0
safe	332	41.6	10	30.0	sample	347	39.5	12	.0
safeguard	378	32.5	13	15.4	sample	308	34.1	8	37.5
safety	399	42.1	11	9.1	sand	347	58.8	12	25.0
sag	313	31.9	13	15.4	sandal	365	43.0	14	42.9
sage	371	31.8	16	31.3	sandwich	398	66.8	16	31.3
sagebrush	372	24.2	15	26.7	sanitarium	399	27.1	11	9.1
sail	307	53.4	14	42.9	sanitary	382	25.7	17	29.4
sailboat	356	72.1	21	47.6	sanitation	307	33.6	14	42.9
sailor	397	63.5	13	15.4	sanity	396	31.1	19	26.3
saint	371	43.9	14	28.6	sap	308	26.5	8	25.0
saintly	347	34.9	12	33.3	sapling	398	17.6	21	.0
sake	369	25.2	20	20.0	sapphire	309	27.2	9	33.3
salad	296	62.5	10	50.0	sardine	363	32.0	13	23.1
salary	363	27.9	22	31.8	sash	376	22.6	19	31.6
sale	343	59.2	18	33.3	satchel	314	23.6	13	15.4
salesman	362	54.1	16	31.3	satin	372	22.8	15	20.0
salesmanship	379	49.3	5	20.0	satisfaction	319	24.8	12	25.0
saleswoman	355	60.3	17	41.2	satisfactory	354	29.9	12	16.7
saliva	347	31.1	12	8.3	satisfy	320	37.2	9	11.1
salmon	347	43.5	12	8.3		341	33.4	12	25.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
Saturday	383	53.8	15	33.3	scarce	376	22.3	19	5.3
sauerkraut	373	25.2	14	28.6	scarcely	372	38.4	15	40.0
sauce	377	47.2	15	26.7	scare	402	46.0	18	16.7
sauceman	358	44.7	21	28.6	scarecrow	396	30.6	19	15.0
saucer	369	41.5	20	30.0	scarlet	354	21.5	17	35.3
sausage	358	48.9	21	38.1	scatter	378	43.9	13	46.2
savage	396	29.5	19	31.6	scene	366	26.5	17	23.5
save	356	58.6	19	26.3	scene	374	28.2	14	35.7
sever	311	46.9	11	54.5	scenery	340	25.9	12	35.3
savings	354	52.3	12	25.0	scent	394	32.5	16	37.5
savior	302	37.1	12	16.7	schedule	253	26.4	10	30.0
saw	313	57.2	13	30.6	scheme	367	22.9	16	12.5
sawdust	399	42.1	11	27.3	scholar	394	40.4	16	25.0
sawmill	354	42.7	12	33.3	schoolboy	307	58.6	8	12.5
saxophone	341	33.4	12	25.0	schoolhouse	305	63.9	13	7.7
say	356	47.2	12	8.3	schoolmaster	319	59.9	12	41.7
scab	371	42.6	16	10.8	schoolroom	377	50.9	26	40.0
scale	372	39.8	15	13.3	schoolteacher	369	36.6	20	20.0
scales	362	41.1	17	23.5	schooner	354	23.6	16	31.3
scallop	330	23.2	21	23.5	science	396	37.0	16	12.5
scalp	358	25.7	21	19.0	scientist	311	53.1	31	10.2
scaly	372	26.1	15	13.3	scissors	396	47.7	16	19.0
scamp	354	22.6	12	8.9	scold	378	39.2	13	23.1
scamper	358	19.0	21	14.3	scoop	378	26.2	13	23.1
scan	372	19.9	15	13.3	scoop	378	32.8	13	30.8
scandal	397	29.5	13	15.4	scorch	380	28.9	13	23.1
scar	397	37.8	13	23.1	score	311	49.2	11	10.2

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
scorn	311	22.2	11	18.2	scum	302	23.8	12	41.7
scour	372	26.1	15	20.0	scurry	383	27.7	21	23.8
scoundrel	311	30.2	11	18.2	scythe	381	23.4	6	33.3
scoutmaster	397	38.0	16	31.3	sea	332	76.2	10	60.0
scowl	311	36.0	11	27.3	seacoast	378	47.6	12	41.7
scramble	394	28.7	16	37.5	seafaring	383	46.7	21	42.9
scramble	384	29.9	18	16.7	seal	363	68.9	13	69.2
scramble	319	31.3	12	16.7	seam	383	26.9	21	28.6
					seaman	383	55.4	21	33.3
scrapbook	381	53.0	6	16.7	seaplane	303	55.6	15	26.7
serape	383	28.5	21	14.3	seaport	390	30.7	17	.0
seraper	369	33.1	20	20.0	search	383	38.4	21	23.8
seratch	378	46.0	13	23.1	searchlight	383	48.0	21	23.8
seram	383	46.7	21	23.8	seashore	390	53.8	17	17.6
sercech	383	31.6	21	28.6	seasick	296	38.9	10	10.0
sercen	394	36.3	16	12.5	seaside	394	51.5	16	31.3
screen	380	35.5	13	38.5	season	374	48.4	18	27.8
screw	378	37.8	13	15.4	season	371	33.4	12	25.0
scribble	364	25.5	14	35.7	seasoning	390	39.0	17	23.5
scribbler	371	18.9	14	.0	seamstress	374	35.8	10	27.0
scribe	383	27.7	21	23.8	sear	350	48.6	15	6.7
script	383	34.2	21	33.3	seaweed	383	41.0	21	14.3
scroll	383	39.9	21	19.0	second	358	35.2	15	26.7
scrub	383	48.3	21	23.8	second	307	65.1	14	42.9
scuff	383	42.6	21	33.3	second	377	41.6	15	20.0
scuffle	383	21.7	21	23.8	secrecy	358	39.7	15	6.7
sculptor	383	30.5	21	33.3	secret	358	30.7	15	40.0
sculpture	381	30.7	6	33.3	secretary	358			

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
section	377	30.8	20	20.0	senior	374	47.6	18	22.2
secure	377	28.6	20		sensation	354	28.8	12	25.0
secure	390	26.9	17	15.0	sensational	313	16.9	13	23.1
security	369	27.6	13	23.1	sense	307	41.4	8	12.5
sedan	376	24.7	19	21.1	senseless	374	33.7	18	22.2
sedative	371	20.2	14	14.3	sensible	369	26.6	20	10.0
sec	371	83.6	14	42.9	sensitive	354	27.7	12	8.3
seed	374	62.3	18	22.2	sentence	313	59.4	13	23.1
seedling	390	55.4	17	47.1	separate	374	33.2	18	22.2
seek	374	41.2	18	22.2	separation	369	31.2	20	15.0
seem	398	37.2	21	23.8	September	341	77.4	12	58.3
seep	381	27.3	6	33.3	serenade	296	23.0	10	30.0
seesaw	364	59.1	14	64.3	sergeant	296	49.3	10	50.0
seize	398	29.6	21	14.3	serial	397	22.7	16	43.8
seldom	354	28.5	17	29.4	series	371	28.6	15	13.3
select	374	26.2	18	27.8	serious	308	31.8	8	25.0
selection	396	28.5	19	26.3	seriousness	400	44.5	12	41.7
selective	410	30.7	24	16.7	sermon	400	26.5	12	25.0
self	307	42.3	8	12.5	serpent	363	15.4	13	15.4
selfish	354	40.7	17	23.5	serum	399	30.3	11	45.5
sell	377	50.7	20	10.0	servant	383	41.5	21	19.0
seller	358	39.9	15	6.7	serve	404	36.6	13	15.4
semester	400	33.5	12	25.0	serve	347	20.7	12	41.7
semicircle	364	40.7	14	28.6	server	377	42.2	20	25.0
senate	307	37.5	14	35.7	service	363	44.1	13	15.4
senator	374	28.3	18	27.8					
send	358	42.5	21	9.5					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
serviceable	394	23.9	16	43.8	shake	369	45.8	20	30.0
session	375	31.7	15	20.0	shaken	372	29.3	15	13.3
set	398	34.7	21	9.5	shaky	371	36.1	16	25.0
set	305	44.9	13	15.4	shallow	398	37.4	16	6.3
scatter	369	18.7	20	20.0	shameful	369	41.7	13	23.1
settling	365	40.3	14	35.7	shameless	313	33.2	13	30.8
settlement	320	40.9	9	55.6	shampoo	396	57.1	19	26.3
settler	363	42.1	13	23.1	shanty	369	21.7	13	23.1
seven	369	66.7	20	40.0	shape	320	35.6	9	11.1
seventh	398	67.3	21	33.3	shapeless	400	37.0	12	33.3
seventy	372	53.8	15	13.3	share	380	37.4	13	23.1
several	398	40.5	21	19.0	shark	320	46.6	9	44.4
severe	398	37.9	21	14.3	sharp	360	42.8	15	43.8
sew	398	53.5	21	23.8	sharpen	400	32.0	12	25.0
sewage	398	34.4	21	14.3	sharpness	369	36.9	13	30.8
sewer	354	27.1	12	25.0	sharpshooter	378	39.4	13	23.1
sewing	398	58.5	21	9.5	shave	364	50.5	16	37.5
sex	372	44.1	15	40.0	shawl	369	33.9	20	35.0
shabby	397	28.0	13	15.4	she	399	81.2	11	45.5
shack	360	24.7	16	12.5	shear	394	25.4	16	12.5
shade	374	42.0	18	27.8	sheath	307	19.9	8	25.0
shady	402	31.1	18	27.8	shed	397	36.8	16	37.5
shadow	382	54.7	17	41.2	shed	400	25.8	12	41.7
shaft	397	23.4	13	30.8	sheen	364	25.5	14	35.7
shaggy	365	22.2	14	20.6	sheep	320	71.9	9	33.3
	383	34.5	22	18.2	sheepish	379	38.8	5	.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
sheet	379	45.4	5	.0	choemaker	311	60.1	11	36.4
shell	371	45.6	14	21.4	choot	397	48.9	16	18.8
shellac	320	45.3	9	11.1	shop	384	61.5	18	38.9
shellfish	307	57.3	14	42.9	shopkeeper	307	55.7	14	50.0
shelter	367	43.6	16	25.0	shopper	400	45.8	12	33.3
shepherd	399	60.7	11	45.5	shopping	400	53.5	12	33.3
sherbet	371	32.3	16	31.3	shore	319	43.3	12	8.3
sheriff	369	50.9	13	7.7	shoreline	364	37.6	14	21.4
sherry	374	35.8	17	52.9	shoreward	376	34.8	16	25.0
shield	380	28.4	13	23.1	short	382	63.6	17	29.4
shield	307	27.4	8	.0	shortage	347	42.9	12	25.0
shift	314	29.3	13	23.1	shorter	369	37.4	13	7.7
shimmer	397	36.5	16	50.0	shorter	369	40.9	13	7.7
shin	367	37.3	16	12.5	shortland	369	32.5	20	20.0
shine	291	64.9	5	20.0	shortness	394	36.8	16	43.8
shingle	347	26.2	12	16.7	shortstop	364	47.0	16	12.5
shining	372	45.4	15	20.0	shoulder	364	47.0	16	12.5
shiny	354	56.5	12	33.3	shout	383	50.4	21	19.0
ship	371	70.4	16	12.5	shove	369	32.0	13	.0
shipment	376	34.8	19	15.8	shovel	369	53.1	13	7.7
shipper	383	44.4	21	28.6	show	369	50.1	13	23.1
shipshape	371	26.1	16	37.5	showboat	369	43.4	13	.0
shipwreck	369	30.6	13	15.4	shower	369	36.9	13	30.8
shipyard	360	41.7	16	25.0	shower	307	56.7	8	12.5
shiver	380	47.4	13	15.4	showman	291	61.9	5	.0
shock	377	32.4	20	15.0	shriek	363	46.6	13	61.5
shoe	369	77.2	20	50.0	shrill	369	22.0	13	15.4
					shrill	373	24.4	14	14.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
shrimp	307	51.1	8	25.0	siege	363	23.1	13	15.4
shrink	367	26.4	16	43.8	sieve	308	25.3	8	25.0
shrink	308	28.9	8	25.0	sift	308	29.2	8	25.0
shrinkage	291	22.7	5	20.0	sigh	308	28.6	8	12.5
shrivel	308	19.8	8	12.5	sight	383	34.2	22	18.2
shrub	371	28.6	16	12.5	sightless	410	37.8	24	25.0
shrubbery	308	28.6	8	25.0	signal	404	49.8	19	38.5
shrug	394	24.1	16	31.3	signature	355	48.2	17	29.4
shrunken	380	31.6	13	15.4	signboard	379	32.7	5	20.0
shuck	373	35.9	14	21.4	silence	362	46.4	16	37.5
shudder	308	35.4	8	37.5	silent	367	45.2	16	18.8
shuffle	400	31.3	12	16.7	silhouette	374	28.3	17	35.3
shuffle	380	27.4	13	23.1	slk	379	49.3	5	40.0
shut	308	56.2	8	75.0	slken	309	34.0	9	22.2
shutter	313	34.8	13	23.1	silkworm	308	54.9	8	25.0
shyness	382	38.7	17	35.3	slil	340	33.5	12	25.0
stick	395	55.2	16	50.0	silly	313	59.4	13	38.5
sicken	343	51.6	18	38.9	silver	377	46.9	15	26.7
stickle	302	16.6	12	25.0	silverware	340	52.4	12	33.3
stickly	320	46.9	9	11.1	silvery	360	43.1	16	31.3
stickness	380	47.6	13	38.5	similar	320	31.3	7	14.3
side	379	40.1	5	20.0	similar	307	39.1	8	25.0
sidelong	319	48.0	12	8.3	slimmer	378	25.1	13	15.4
sidewalk	365	40.8	14	21.4	simple	358	37.4	21	28.6
sideways	397	43.6	16	37.5	simplify	380	26.8	13	30.8
sidewise	341	44.3	12	25.0	sliply	383	43.9	15	20.0
siding	308	23.1	8	.0	sin	305	54.1	13	30.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
since	371	38.0	12	16.7	sixty	364	49.2	16	6.3
sincere	302	36.1	12	33.3	size	320	46.3	7	28.6
sincerely	379	24.3	5	40.0	skate	382	46.6	17	29.4
sinful	382	31.9	17	11.8	skeleton	347	50.7	12	25.0
sing	410	61.7	24	45.8	sketch	371	28.3	16	12.5
singe	371	13.7	16	31.3	ski	354	59.3	12	25.0
singer	308	48.1	8	.0	skid	341	38.7	12	41.7
singler	366	30.6	17	29.4	skiff	397	19.1	13	7.7
singular	382	31.2	17	29.4	skill	364	30.8	14	21.4
sink	380	53.4	13	15.4	skilled	367	37.1	16	37.5
sinless	390	31.8	17	17.6	skillet	410	13.7	24	20.8
sinner	398	35.4	21	28.6	skillful	383	36.8	15	26.7
sip	307	28.3	14	28.6	skin	402	54.5	18	50.0
sir	360	31.7	16	12.5	skinny	400	40.3	12	25.0
siren	364	30.2	16	18.8	skip	383	61.4	15	33.3
sirloin	305	20.3	13	7.7	skipper	340	23.2	12	25.0
sister	309	67.0	9	44.4	skirt	302	77.2	12	33.3
sisterhood	390	31.3	17	17.6	skull	377	39.3	15	26.7
sit	398	48.2	16	5.3	skunk	369	67.5	20	30.0
site	320	31.9	7	14.3	sky	332	60.2	10	20.0
situated	308	23.7	8	12.5	skylark	313	36.4	13	23.1
situation	291	22.7	5	40.0	skyscraper	320	48.8	9	33.3
six	354	71.2	12	33.3	slab	302	33.4	12	25.0
sixpence	382	46.9	17	41.2	slack	398	30.2	16	31.3
sixteen	376	54.3	16	31.3	slacken	296	37.8	10	20.0
sixth	377	72.9	15	40.0	slacks	371	35.6	14	21.4
					slam	410	39.3	24	20.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
slang	383	30.8	21	23.8	olmy	394	31.5	16	31.3
slant	314	30.6	13	15.4	slng	375	24.8	15	20.0
slap	341	43.1	12	8.3	slng	332	22.6	10	40.0
slash	340	18.8	12	50.0	slnk	347	32.9	12	8.3
slate	320	19.1	9	11.1	sltp	307	48.5	14	42.9
slaughter	343	40.8	18	22.2	slpper	397	54.9	13	38.5
slave	320	41.3	7	14.3	slppery	366	38.3	17	23.5
slay	374	31.6	14	42.9	sltc	375	32.0	15	33.3
slayer	314	38.9	13	38.5	slver	369	24.4	20	35.0
slid	347	45.5	12	25.0	slvp	371	48.5	12	33.3
sleep	307	23.5	8	.0	slope	305	33.1	13	30.8
sleep	396	56.8	19	26.3	slopy	380	37.6	13	15.4
sleep	396	47.5	19	26.3	slot	311	37.3	11	9.1
sleep	396	52.1	13	15.4	slouch	320	27.5	7	42.9
sleepless	305	53.9	18	33.3	slow	311	76.5	11	54.5
sleepwalker	343	64.3	13	7.7	slug	371	22.9	12	16.7
sleepy	371	41.8	14	28.6	slugs	378	30.2	13	7.7
select	305	37.7	13	15.4	slumber	978	29.4	13	30.8
sleeveless	373	51.2	14	28.6	slump	319	28.2	12	8.3
sleigh	340	28.8	12	.0	slums	291	24.4	5	40.0
slender	320	35.9	7	28.6	slush	378	35.2	13	46.2
slice	309	37.9	9	44.4	smack	340	33.2	12	41.7
slide	340	38.5	12	8.3	small	340	67.4	12	16.7
slight	332	21.1	10	20.0	smallpox	340	34.7	12	8.3
slim	379	35.9	5	.0	smart	340	44.4	12	8.3
slime	355	22.0	17	17.6	smash	374	40.1	14	42.9
					sneer	383	29.8	15	40.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
swell	410	40.5	24	16.7	snicker	319	23.2	12	25.0
swell	374	40.1	17	35.3	sniff	360	40.3	16	6.3
swile	383	48.8	15	20.0	sniffle	371	45.0	16	25.0
swich	377	45.4	15	40.0	snip	382	32.7	17	29.4
swichy	343	53.1	18	33.3	snob	399	31.1	11	45.5
smock	347	22.2	12	25.0	snoot	382	20.2	17	11.8
smog	320	53.8	9	55.6	snoots	307	41.7	8	37.5
smoke	375	54.9	15	33.3	snore	397	37.0	13	30.8
smoker	377	50.9	20	30.0	snout	319	35.7	12	50.0
smokesack	319	50.2	12	41.7	snow	347	66.0	12	25.0
smoky	383	38.6	15	13.3	snowbank	309	44.7	9	22.2
smooch	358	27.9	21	19.0	snowflake	379	52.0	5	.0
smother	383	42.6	15	33.3	snowy	380	73.9	13	30.8
smolder	377	25.5	20	30.0	snuff	291	45.7	5	.0
smudge	347	30.3	12	41.7	snug	383	20.9	22	9.1
smuggle	358	26.8	21	33.3	smuggle	374	25.9	17	17.6
smugler	354	26.3	12	8.3	so	358	28.2	21	42.9
snack	383	41.0	22	22.7	soak	371	53.1	16	31.3
snack	376	31.4	23	34.8	soapsuds	369	53.4	13	38.5
snail	377	62.1	15	53.3	soapy	371	35.3	16	25.0
snail	307	29.6	8	12.5	soar	398	19.6	16	12.5
snare	363	41.6	13	38.5	soch	341	41.1	12	25.0
snare	404	25.0	13	38.5	sober	320	30.9	7	28.6
snarl	307	34.9	8	12.5	sober	302	25.2	12	16.7
snatch	374	35.8	17	52.9	society	358	50.3	15	40.0
snatch	374	35.8	17	52.9	society	313	36.7	13	23.1
snack	374	35.3	17	52.9	socket	296	40.5	10	50.0
snack	369	27.6	13	30.8					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
socks	379	45.4	5	20.0	songsster	320	51.3	7	42.9
sod	364	26.4	14	42.9	sonny	378	54.5	13	30.8
sofa	380	41.1	13	15.4	soon	398	57.3	16	18.8
soft	340	57.4	12	33.3	soot	397	31.7	16	31.3
soften	332	42.2	10	40.0	soothe	372	26.6	15	33.3
soggy	374	34.2	17	17.6	sop	378	31.5	13	7.7
soll	374	45.5	14	42.9	soprano	332	25.6	10	20.0
soldier	372	65.6	15	46.7	sore	363	52.1	13	53.8
sole	354	20.1	12	16.7	soreness	374	40.6	14	14.3
sold	378	40.2	13	7.7	sorrow	347	42.1	12	16.7
solo	364	31.0	14	21.4	sorrowful	404	52.5	13	30.8
solist	376	32.4	23	39.1	sorry	376	62.2	16	37.5
solution	402	18.7	18	5.6	sort	347	23.9	12	.0
solve	383	39.4	21	23.8	sound	374	51.1	14	14.3
sombrero	340	19.4	12	16.7	soundproof	319	32.0	12	33.3
some	332	52.1	10	20.0	soup	364	72.3	14	35.7
somebody	376	50.0	19	21.1	sour	410	20.2	24	20.8
somehow	320	43.1	7	42.9	south	372	63.4	15	33.3
someone	382	51.3	17	29.4	southern	379	46.4	5	40.0
somerset	364	24.5	14	21.4	souvenir	354	42.4	12	16.7
sometime	319	48.0	12	25.0	sovereign	340	21.2	12	16.7
sometimes	305	42.3	13	23.1	sov	384	23.2	18	11.1
somewhat	395	36.2	16	12.5	space	307	33.9	8	25.0
somewhere	314	47.1	13	15.4	spacious	372	26.1	15	26.7
son	305	60.0	13	15.4	spade	374	35.8	14	35.7
song	341	60.7	12	33.3	spaghetti	380	54.2	13	23.1

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Word	%	Word	%		Word	%	Word	%
openiel	341	22.9	12	.0	opedy	341	37.2	12	8.3
openk	291	48.8	5	40.0	opell	371	64.2	15	26.7
opere	341	21.7	12	16.7	opend	372	59.4	15	33.3
opark	305	28.9	13	23.1	opendchiffc	410	44.4	24	20.8
sparkle	305	34.8	13	23.1	opice	379	29.0	5	20.0
sparkler	340	46.5	12	33.3	opicy	379	28.5	5	.0
sparrow	371	42.9	12	16.7	oplder	378	55.0	12	41.7
spat	378	20.4	13	15.4	opke	358	27.7	21	23.8
spatter	373	27.6	14	14.3	oplll	378	39.2	12	16.7
speck	291	52.2	5	.0	opln	354	44.4	17	17.6
speaker	354	50.6	12	25.0	oplnal	402	29.9	18	38.9
spear	341	32.8	12	33.3	oplnach	340	47.9	12	25.0
special	291	47.1	5	20.0	oplnch	402	21.6	18	27.8
specialist	402	28.1	18	55.6	oplncl	402	33.2	14	14.3
specialize	395	37.0	16	25.0	opline	373	28.3	13	23.1
specialty	341	42.5	12	66.7	oplte	378	22.4	18	38.9
species	305	23.3	13	.0	opltre	384	25.4	17	23.5
speck	347	33.1	12	25.0	oplttc	374	34.5	17	47.1
spectacle	354	21.5	17	5.9	oplnsh	378	50.3	13	23.1
spectacles	377	27.1	15	26.7	oplendd	369	35.0	20	25.0
spectacular	364	39.0	16	6.3	oplnndor	369	23.8	20	10.0
speech	383	55.9	22	4.5	oplnnc	354	30.5	17	17.6
speechless	371	46.4	15	13.3	opltt	354	34.5	17	17.6
speed	381	32.8	6	16.7	opoll	332	38.3	10	10.0
speedily	377	46.7	15	40.0	opote	332	17.8	10	10.0
speedometer	380	30.3	13	15.4	spokesman	378	43.4	12	8.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
spenge	354	28.0	17	17.6	squard	332	34.9	10	20.0
spook	354	42.9	17	35.3	squall	378	17.7	12	33.3
spool	354	42.1	17	35.3	square	384	40.1	18	16.7
spoon	397	65.0	16	43.8	squash	332	30.7	10	.0
spoonful	372	40.9	15	13.3	squac	301	23.6	6	.0
sport	314	62.4	13	30.8	squaw	307	30.3	8	37.5
sportsman	314	44.3	13	15.4	squaw	404	37.6	13	38.5
sportsmanship	398	41.2	16	18.8	squeak	378	39.2	12	33.3
spot	384	33.1	18	5.6	squeal	384	25.3	18	16.7
spotless	376	40.2	23	30.4	squeeze	404	44.1	13	7.7
spotlight	307	57.0	14	57.1	squire	384	20.8	18	5.6
spout	343	24.5	18	11.1	squirrel	404	70.0	13	53.8
sprain	404	40.1	13	30.8	squirt	381	21.8	6	.0
sprawl	375	36.3	15	20.0	stab	384	17.7	18	16.7
spray	384	49.2	18	33.3	stable	404	32.9	13	7.7
spread	354	39.3	17	11.8	stable	313	21.1	13	15.4
spreader	384	28.6	18	44.4	stack	379	25.1	5	.0
spring	378	62.2	12	41.7	stack	398	45.5	16	12.5
spring	384	31.3	18	22.2	stadium	313	21.1	13	.0
springtime	360	62.2	16	31.3	staff				
springy	341	27.9	12	33.3					
sprinkle	378	54.8	12	50.0	stag	343	16.0	18	11.1
sprout	354	26.3	17	17.6	stage	404	34.4	13	15.4
spruce	378	28.3	12	25.0	stagger	375	28.0	15	46.7
spy	378	22.5	12	8.3	stagnant	354	19.5	17	35.3
spurt	378	16.7	12	25.0					
spy	381	16.7	6	54.9	stein	343	21.6	18	11.1
spyglass	340	46.8	12	33.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
stair	380	43.4	13	7.7	statesman	378	44.7	12	33.3
stake	404	22.8	13	.0	static	374	21.7	17	17.6
stake	374	31.0	17	5.9	station	378	43.7	12	33.3
stalk	340	35.0	12	33.3	stationery	307	22.8	14	42.9
scale	375	36.8	15	6.7	statue	376	32.7	16	12.5
scall	375	26.1	15	33.3	stay	378	52.4	12	16.7
scall	343	22.7	18	22.2	steadiness	404	25.5	13	23.1
scallion	355	29.0	17	17.6	steady	379	27.7	5	20.0
scammer	360	27.2	16	25.0	steak	319	59.9	12	33.3
scamp	404	49.3	13	7.7	steal	378	41.0	12	8.3
scampede	307	22.5	14	21.4	steam	378	33.9	12	33.3
scamp	384	33.3	18	27.8	steamer	378	35.2	12	33.3
scand	371	23.5	12	16.7	steamship	378	46.8	12	41.7
scandard	404	26.7	13	7.7	steed	378	17.7	12	33.3
scandpoint	397	38.8	16	43.8	steep	343	34.1	18	11.1
scandstall	384	24.0	18	22.2	steeply	364	30.8	16	12.5
scar	307	37.8	14	35.7	steer	378	49.7	12	16.7
scarch	404	34.4	13	15.4	steer	366	44.0	17	17.6
scare	343	22.4	18	22.2	stem	384	63.0	18	50.0
scarling	376	23.7	16	31.3	step	354	57.6	17	17.6
scarly	404	52.5	13	7.7	stepfather	384	52.6	18	27.8
scar	378	26.8	12	8.3	stepmother	394	32.5	16	43.8
scarle	404	40.6	13	53.8	sterilize	309	37.9	9	33.3
scarlings	404	30.4	13	7.7	sterling	395	30.4	16	25.0
scarvation	383	46.5	22	9.1	stern	376	25.0	16	31.3
scarve	384	38.5	18	27.8	stern	377	31.6	15	.0
statement					sternness				
					stew	367	53.4	16	18.8

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
steward	377	45.9	15	20.0	storekeeper	291	56.0	5	20.0
stewardess	367	39.0	16	25.0	stork	308	27.3	8	50.0
stick	367	60.5	16	37.5	storm	398	58.8	21	19.0
stick	360	41.9	16	18.8	stormy	366	52.7	17	17.6
stiff	378	33.9	12	16.7					
stiffen	291	30.6	5	.0	story	320	52.2	7	42.9
stiffness	291	35.1	5	.0	stout	378	23.5	13	.0
stiff	291	39.2	12	16.7	stout	371	22.9	12	8.3
stillness	311	49.5	11	27.3	stove	364	62.4	14	21.4
stills	311	37.3	11	36.4	stove	320	29.4	7	28.6
sting	291	25.1	5	.0	stove	376	26.1	19	26.3
stingy	311	41.8	11	36.4	straddle	367	35.7	16	37.5
stink	332	25.6	10	50.0	straight	367	15.5	16	31.3
stirrup	364	32.4	14	35.7	straightaway	367	28.9	16	25.0
stitch	311	36.3	11	36.4	straighten	374	37.7	17	41.2
stock	311	47.6	11	18.2	strain	364	32.6	17	23.5
stockholder	371	56.6	14	14.3	strain	366	39.9	17	23.5
stocking	354	56.5	17	23.5	strait	371	28.0	15	13.3
stomach	369	59.3	13	7.7	strand	366	16.9	17	29.4
stomachy	360	33.3	16	6.3	strange	383	31.9	15	33.3
stool	395	32.4	16	12.5	strangeness	291	44.7	5	20.0
stop	395	50.1	16	25.0	stranger	373	40.5	14	28.6
stopper	371	25.9	15	20.0	strangle	319	31.7	12	41.7
store	320	74.1	7	42.9	strap	320	40.6	7	57.1
storage	320	40.0	7	42.9	straw	378	49.5	13	15.4
storehouse	373	30.8	14	14.3	strawberry	369	73.7	13	23.1

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
atrocy	369	26.6	13	30.8	study	373	60.9	14	28.6
atreak	369	29.0	13	15.4	stuff	373	32.2	14	14.3
atream	369	54.7	13	38.5	stuffing	373	41.6	14	7.1
atreamer	369	17.3	13	30.8	stuffy	373	24.7	14	21.4
atreet	379	67.0	5	40.0	stumble	396	26.9	21	19.0
atrength	364	29.1	14	28.6	stump	373	32.4	14	42.9
atrengthem	360	38.9	16	37.5	stun	296	27.7	10	30.0
atretch	320	25.6	7	14.3	stunning	400	20.3	12	25.0
atretcher	373	29.5	14	21.4	stunt	311	26.7	11	18.2
atrike	410	41.5	24	41.7	stupid	362	41.9	17	23.5
atrike	364	22.0	14	28.6	stupidity	402	44.5	18	16.7
atrike	374	43.9	14	35.7	sturdy	372	36.2	15	13.3
atrip	373	37.8	14	7.1	stutter	373	30.3	14	28.6
atripe	371	31.3	16	18.8	sty	376	21.0	23	30.4
atroke	373	45.8	14	14.3	style	369	41.2	20	15.0
atroke	354	31.4	12	8.3	stylish	354	41.5	12	16.7
atroll	394	31.2	16	43.8	submarine	381	42.5	6	16.7
atrong	313	55.9	13	38.5	subscriber	376	37.5	23	13.0
atruggle	373	27.1	14	14.3	subnormal	341	36.1	12	16.7
atrut	373	18.0	14	21.4	subscription	410	36.1	24	12.5
atrub	384	23.2	18	38.9	substance	332	42.5	10	20.0
atruborn	305	24.6	13	7.7	substitute	358	29.9	15	.0
atubby	373	22.5	14	14.3	substitution	362	35.4	16	25.0
atudent	373	45.8	14	42.9	subtract	379	52.5	5	20.0
atudio	320	49.4	7	28.6	subtraction	383	59.8	21	33.3
atudious	373	37.8	14	7.1	suburban	410	25.1	24	41.7
					subvey	347	51.3	12	25.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
succeed	410	35.1	24	12.5	sulphur	362	30.4	16	31.3
success	404	38.9	13	15.4	sultan	377	18.3	15	20.0
successful	404	27.5	13	30.8	sun	377	40.6	15	20.0
such	376	39.9	23	4.3	sunbather	307	33.2	8	23.0
suck	383	28.7	21	4.8	sunbath	367	30.0	16	23.0
sucker	397	32.5	13	38.5	sunbat	367	62.1	16	18.8
suction	383	29.8	22	22.7	sun	379	54.9	5	20.0
sudden	371	49.1	14	35.7	sunbeam	369	25.5	13	.0
suddenness	397	34.0	13	7.7	sunbat	390	44.4	17	23.3
sude	371	38.8	14	21.4	Sunday	343	69.4	18	23.3
sue	383	28.7	15	20.0	sundial	375	33.6	15	20.0
suede	367	18.5	16	18.8	sundown	360	52.8	16	37.3
suffer	347	40.3	12	41.7	sunflower	320	70.0	7	37.1
sufferer	380	32.6	13	23.1	sunken	364	34.6	16	18.8
suffering	369	33.3	13	7.7	sunless	410	45.4	24	20.8
suffix	307	33.6	8	.0	sunlight	371	51.0	12	16.7
sufoicate	358	35.8	15	20.0	sunny	302	61.3	12	16.7
sufoaction	341	26.7	12	16.7	sunrise	371	41.0	15	26.7
suggest	396	25.0	19	31.6	sunset	320	50.3	9	33.6
suggestion	364	19.2	16	6.3	sunshine	362	59.4	16	18.8
suicide	379	25.1	5	20.0	sunshiny	360	53.6	16	18.8
suit	364	62.1	16	31.3	sunstroke	373	22.3	14	14.3
suitable	364	32.1	16	18.8	superintendent	383	44.4	21	28.6
suitcase	364	38.7	14	21.4	superior	369	21.7	13	.0
suite	380	33.4	13	38.5	superman	320	36.6	7	37.1
sulk	307	29.6	8	.0	supermarket	381	57.8	6	16.7
sullen	319	37.3	12	33.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
supplantation	320	21.6	7	14.3	suspicion	362	24.0	16	6.3
supervisor	319	48.3	12	33.3	suspicious	364	26.4	16	12.3
supper	319	54.2	12	16.7	swamp	362	53.9	16	23.0
supply	340	29.1	12	8.3					
support	367	33.8	16	43.8	swan	320	45.6	9	33.3
supporter	291	44.7	5	.0	swap	362	26.2	16	.0
supporter	362	36.5	16	6.3	swarm	362	34.5	16	31.3
supposc	362	39.0	16	25.0	swat	362	25.7	16	43.0
supreme	362	20.7	16	18.8	sway	376	31.4	16	23.0
sure	340	35.6	12	25.0	sway	362	10.0	16	12.3
surely	320	45.6	7	42.9	sweat	371	37.5	12	23.0
surf	311	35.4	11	54.5	sweater	362	63.0	16	23.0
surprise	362	47.0	16	18.8	sweat	376	50.0	16	10.0
surprising	362	39.0	16	25.0	sweeper	307	57.7	6	23.0
surface	340	31.8	12	25.0	sweeper	379	46.2	5	20.0
surgeon	364	27.7	14	28.6	sweethart	362	59.1	16	23.0
surgery	362	35.9	16	43.8	swell	362	27.9	16	12.3
surrender	376	30.3	16	12.5	swerve	400	19.5	12	33.3
surround	354	24.0	12	25.0	swift	362	39.0	16	37.5
surroundings	362	33.7	16	25.0	swiftness	305	32.1	13	7.7
survive	369	35.2	13	7.7	swim	366	74.9	17	33.3
survivor	396	35.9	19	47.4					
suspect	362	24.6	16	25.0	swindle	400	19.0	12	50.0
suspect	365	27.4	14	7.1	swindler	362	35.4	16	31.3
suspenders	362	32.0	16	50.0	swing	404	16.3	13	23.1
suspense	375	31.2	15	33.3	swing	340	48.5	12	16.7
					swish	340	33.3	12	66.7

WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%
switchboard	395	34.4	16	31.3
switchman	340	40.9	12	33.3
sword	371	39.9	12	33.3
syllabic	362	19.6	16	31.3
symbol	309	43.7	9	55.6
sycamore	364	38.2	16	25.0
sympathetic	362	32.0	16	10.0
sympathy	332	25.6	10	20.0
syrup	343	37.0	18	22.2
sympathize	362	49.2	16	37.5
system	360	28.3	16	10.0
system	379	32.5	5	.0

Word	TOTAL		AGE 7		Word	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
cab	371	34.0	15	20.0	cape	360	46.7	16	25.0
cable	377	66.0	15	26.7	capitola	340	31.8	12	16.7
tablecloth	291	60.5	5	20.0	cardy	371	32.3	15	6.7
tablet	376	50.5	19	5.3	corgett	404	34.2	13	38.5
teblespoon	371	53.6	14	21.4	earnish	398	24.1	16	6.3
cableware	309	57.0	9	33.3	corry	354	34.7	12	16.7
cock	371	44.7	15	20.0	ceak	340	28.5	12	25.0
tackie	390	30.5	17	35.3	caucel	404	22.8	13	.0
tackie	394	33.2	16	25.0	caate	397	43.8	16	43.8
cadpole	383	43.3	15	13.3	casticles	399	51.1	11	.0
tag	360	45.6	16	18.8	casly	374	50.3	18	11.1
coll	396	41.2	19	47.4	caltered	377	24.1	15	26.7
take	355	48.5	17	17.6	cattoo	332	35.5	10	10.0
calcum	394	31.7	16	10.8	cavern	404	24.3	13	30.8
tele	360	41.9	16	37.5	tax	373	50.4	14	14.3
talent	358	29.1	15	26.7	caraction	394	46.7	16	31.3
celk	358	48.3	15	13.3	taxl	374	55.1	18	22.2
calker	396	48.7	19	31.6	cca	309	71.5	9	44.4
call	371	58.0	15	13.3	teech	378	46.3	12	25.0
tellow	371	22.9	12	16.7	teacher	384	76.0	18	33.3
tawc	394	37.8	16	50.0	team	340	53.8	12	33.3
tamper	358	22.9	21	33.3	teamwork	309	38.5	9	44.4
tan	360	59.2	16	25.0	teapot	340	41.2	12	33.3
tang	364	51.1	16	31.3	teer	373	38.3	14	35.7
tangle	340	34.4	12	33.3	tearful	374	36.9	18	22.2
cap	360	22.5	16	18.8	tease	371	38.8	14	14.3

Word	TOTAL		AGE 7		Word	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
teaspoon	367	61.3	16	25.0	tease	362	27.3	16	31.3
tedious	396	19.9	19	15.8	teat	363	53.0	21	28.6
teens	311	49.5	11	45.5	teem	371	36.1	12	23.0
teeter	380	29.5	13	23.1	terminal	364	22.5	16	18.6
telegram	307	39.7	14	21.4	termitic	364	23.6	16	6.3
telegraph	319	43.3	12	25.0	terrace	378	27.0	12	23.0
telephone	395	67.1	16	43.8	terrible	379	41.4	5	.0
telescope	307	43.6	15	35.7	terrific	379	21.9	5	.0
tell	307	63.5	8	25.0	terrify	371	23.2	14	7.1
teller	371	34.2	15	26.7	territory	379	30.5	5	.0
celltale	332	34.3	10	40.0	terror	364	20.6	14	42.9
temper	404	27.7	13	15.4	terrorist	371	31.0	14	14.3
temperate	374	31.6	17	29.4	test	320	22.5	9	11.1
temperature	296	47.3	10	10.0	testament	371	49.3	14	7.1
temple	371	29.6	12	33.3	testator	379	54.4	5	20.0
temple	332	36.1	10	30.0	testis	355	37.2	17	29.4
temporary	383	25.1	21	4.8	testimony	354	43.9	17	17.6
tempt	374	23.5	18	27.8	textbook	379	49.6	5	20.0
temptation	367	51.8	16	31.3	textile	379	23.0	5	40.0
ten	390	66.4	17	35.3	than	383	32.4	22	27.3
tenant	383	33.7	15	40.0	thank	358	46.9	15	33.3
tend	383	24.3	22	4.5	thankful	364	37.6	14	28.6
tender	366	34.7	17	29.4	thankfulness	319	47.6	12	23.0
tennis	367	54.0	16	25.0	thankless	296	52.7	10	20.0
tenor	383	32.6	22	22.7	thaw	371	20.0	14	7.1
tense	355	37.2	17	47.1	the	362	26.0	16	12.5
					cheater	397	46.1	16	50.0

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
thee	382	33.8	17	17.6	thirst	360	51.7	16	25.0
theft	320	46.3	7	14.3	thirty	355	50.9	17	25.5
their	364	59.3	16	31.3	thorn	307	32.2	14	20.8
theme	394	32.0	16	43.8	thorny	398	33.9	16	6.3
then	366	45.1	17	17.6	thoroughbred	371	31.0	14	20.6
thenceforth	383	17.5	22	9.1	thou	319	37.9	12	41.7
there	371	60.1	15	26.7	though	383	15.1	22	10.3
thereabouts	394	31.5	16	37.5	thought	374	43.9	14	7.1
thereby	371	36.5	15	33.3	thoughtful	355	52.7	17	17.6
therefore	394	31.7	16	50.0	thoughtfulness	291	40.3	9	.0
thereto	355	29.3	17	29.4	thousand	371	65.0	15	40.0
thermometer	291	59.8	5	40.0	thrash	355	15.5	17	11.6
thicken	358	46.6	15	33.3	thrash	362	31.8	16	21.3
thicket	382	44.0	17	23.5	thrasher	376	19.1	19	15.8
thief	390	47.9	17	29.4	thread	374	36.4	17	47.1
thieve	371	38.8	14	35.7	threat	383	29.2	22	22.7
thievish	374	41.7	18	22.2	threaten	355	31.3	17	17.6
thigh	373	32.7	14	21.4	three	374	67.1	18	11.1
thimble	371	37.5	15	20.0	thresher	371	23.5	19	10.3
thin	397	68.8	13	46.2	threshold	376	16.5	19	20.3
think	375	52.8	15	20.0	thrice	319	32.9	12	6.3
thinker	374	45.7	18	16.7	thrift	399	26.1	11	43.3
third	355	60.3	17	52.9	thrifless	376	38.0	19	21.6
thirsty	374	54.8	14	42.9	thrifty	295	28.4	16	37.3
thistle	340	17.6	12	6.3	thrill	378	41.0	13	20.3
					throat	371	61.2	13	26.7

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
throb	399	23.1	11	9.1	tighten	319	35.7	12	41.7
throne	372	28.0	15	20.0	tile	404	10.1	13	7.7
through	374	40.6	18	22.2	tilt	397	42.6	16	31.3
through	371	40.2	15	13.3	timber	319	35.7	12	33.3
throughout	320	29.1	9	22.2	time	376	31.9	16	25.0
throw	296	40.5	10	20.0	timepiece	381	41.2	6	33.3
thrush	347	25.4	12	8.3	timid	378	53.2	13	15.4
thrust	314	28.3	13	15.4	tin	367	29.4	16	23.0
thumb	374	69.5	14	25.6	tin	378	44.4	12	33.3
thunder	306	45.8	8	.0	tinset	374	31.3	10	22.2
thunderbolt	398	51.3	16	6.3	tint	394	29.7	16	37.5
thunderclap	402	46.0	18	27.8	tiny	404	54.0	13	30.6
thundercloud	369	52.3	20	30.0	tip	355	25.9	17	17.6
thunderous	319	50.8	12	25.0	tipsy	376	23.4	19	52.6
Thursday	363	73.3	13	30.8	tiptoe	311	37.6	11	9.1
thus	410	39.0	24	25.0	tire	395	26.1	16	31.3
thy	379	45.1	5	40.0	tired	371	39.4	15	26.7
thicket	308	61.0	8	25.0	tireless	377	34.5	15	20.0
tickle	374	40.9	14	35.7	tiresome	320	22.5	9	11.1
ticklish	410	35.9	24	20.8	tissue	374	51.3	10	33.3
tide	320	28.8	9	11.1	tissue	343	32.1	10	22.2
tidy	396	32.1	19	42.1	titile	374	57.2	18	27.6
tie	410	33.2	24	25.0	titile	397	36.5	13	15.4
tiger	377	74.5	15	40.0	to	376	37.2	19	26.3
tigress	369	45.0	20	20.0	toad	371	46.9	15	40.0
tight	383	45.4	22	18.2	toadstool	354	20.3	12	8.3

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	LENG	7	FLCS	2		LENG	7	FLCS	2
toast	374	63.1	18	33.3	toothpick	364	41.0	14	20.6
toaster	314	58.3	13	53.8	top	404	39.1	13	.0
tobacco	398	54.8	16	6.3	topic	355	36.6	17	11.8
toboggan	379	21.4	5	.0	topmost	302	35.3	17	11.8
today	307	66.4	14	57.1	topple	372	42.5	15	40.0
toddle	319	24.8	12	16.7	torch	374	29.7	14	50.0
toddler	308	25.0	8	25.0	torment	374	21.4	10	27.6
tcc	371	67.4	15	26.7	tormentor	372	25.0	15	20.0
coll	371	24.3	15	13.3	torpedo	363	51.0	13	46.2
collet	398	51.8	16	25.0	torrent	410	32.9	24	37.5
token	377	34.7	20	10.0	torrent	410	29.0	24	25.0
token	373	30.3	14	21.4	tortoise	347	32.3	12	25.0
tomahawk	371	32.3	15	33.3	torture	410	20.3	24	16.7
tomato	371	59.0	15	26.7	lose	319	33.5	12	33.3
tomb	397	39.3	13	30.8	tot	303	27.7	15	26.7
tomestone	383	40.2	15	40.0	total	303	47.5	22	22.7
tomorrow	308	74.0	8	75.0	totter	376	33.2	19	26.3
ton	319	40.1	12	16.7	touch	410	52.7	24	29.3
tone	341	18.2	12	33.3	tough	363	41.0	13	7.7
tongue	402	53.5	18	38.9	tour	303	34.5	15	26.7
tonic	397	34.0	16	37.5	tourist	371	43.4	16	12.5
tonight	319	53.0	12	41.7	tournament	410	39.0	24	25.0
tonnage	313	29.1	13	38.5	town	303	21.1	22	27.3
tonsil	390	41.8	17	17.6	toward	370	37.0	13	30.0
too	320	48.1	9	33.3	towards	382	33.2	17	17.6
toothache	374	60.4	18	11.1	towel	376	50.0	19	5.3
					cover	371	22.4	16	12.5

WORD	TOTAL			WORD	TOTAL		
	Fig.	%	Fig.		Fig.	%	Fig.
tower	302	42.4	12	translation	376	41.0	13
town	397	52.6	16	transmission	375	35.5	15
township	309	45.3	9	transmit	400	26.8	12
toy	376	71.5	19	transmitter	362	36.7	16
trace	374	28.3	14	transparent	398	29.9	21
track	382	46.6	17	transplant	309	41.1	9
trackless	372	34.7	15	transport	382	28.3	17
tract	302	21.5	12	trapezo	358	27.4	21
tractor	372	50.3	15	trapper	371	38.0	16
trade	372	41.7	15	trash	363	51.2	13
trademark	396	21.7	19	travel	400	40.3	12
trader	291	47.1	5	traveler	319	55.8	12
tragedy	343	41.7	13	tray	410	47.6	24
tragic	354	27.7	12	treacherous	375	30.4	15
trail	369	40.7	20	treachery	378	23.0	13
trail	343	38.2	13	tread	410	20.2	24
trailer	354	57.3	12	treasure	373	50.9	14
train	371	67.7	16	treasurer	340	36.8	12
trainer	369	44.2	20	treasury	410	39.8	24
training	363	39.1	13	treat	399	28.6	11
traitor	365	39.7	14	treatment	398	27.6	21
tramp	302	21.9	12	treaty	319	31.0	12
trample	319	27.6	12	tree	305	65.9	13
trance	305	23.9	13	tremble	371	28.6	14
transfer	363	34.7	13	tremendous	397	27.7	13
transform	296	34.1	10	trench	313	30.0	13

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	FREQ	%	FREQ	%		FREQ	%	FREQ	%
trespass	383	38.1	15	33.3	trough	303	34.5	22	9.1
treepass	314	25.8	13	.0	trousers	358	27.9	21	14.3
triangle	371	36.1	15	6.7	trout	383	34.7	22	34.4
tribal	383	25.3	15	26.7	trowel	341	24.6	12	16.7
tribe	378	36.2	13	7.7	truck	366	33.8	17	23.5
tribesman	371	34.5	16	31.3	trudge	374	19.5	14	33.7
trick	354	39.8	12	25.0	true	320	57.8	7	42.9
trickle	354	17.5	17	23.5	truly	394	44.9	16	31.3
tricky	340	30.3	12	8.3	trump	375	29.3	15	26.7
trifle	358	38.3	21	19.0	trumpet	314	20.7	13	28.5
trigger	354	19.8	12	8.3	trumpeter	305	29.8	13	15.4
trime	370	33.6	13	23.1	trunk	399	33.3	11	27.3
trinket	410	31.2	24	25.0	trust	332	39.6	10	60.0
trio	354	26.8	12	16.7	trustworthy	382	24.6	17	23.5
trip	362	50.6	16	25.0	trusty	347	37.8	12	8.3
triple	354	36.7	12	16.7	truth	383	41.3	22	22.7
triplets	394	34.3	16	31.3	truthful	372	43.5	15	20.0
triumph	378	29.1	12	0.3	try	383	47.5	22	13.6
triumphal	376	31.4	19	26.3	tub	354	47.7	12	16.7
triumphant	363	39.7	13	7.7	tube	402	44.8	18	27.8
troop	371	58.2	16	25.0	tuberculosis	410	25.9	24	16.7
trooper	369	32.8	20	30.0	tuck	383	29.8	21	28.6
trophy	314	42.4	13	15.4	tuck.	358	23.2	21	23.8
tropical	378	23.3	13	15.4	Tuesday	296	77.4	10	50.0
tropicals	376	36.2	19	15.8	tug	402	36.1	18	38.9
trot	354	28.0	12	25.0	tulip	402	46.0	18	27.8
trouble	354	52.0	12	25.0					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 1	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
cumble	372	44.4	15	33.3	twitck	313	20.0	13	30.5
tumbler	354	25.7	12	25.0	twitcer	376	21.5	23	21.7
tuna	307	47.9	14	14.3	two	372	74.2	15	20.0
tune	402	32.1	18	11.1	type	366	27.9	17	23.5
tuneful	397	32.7	16	25.0	type	307	51.0	8	12.5
turban	296	20.3	10	10.0	typewriter	367	59.7	16	43.0
turkey	296	64.2	10	20.0	typhoid	313	30.0	13	30.0
turn	398	56.5	21	28.6	typhoon	362	23.2	16	23.0
turnip	354	42.4	12	33.3	typlst	396	47.5	16	23.0
turnpike	308	26.3	8	50.0					
turpentine	296	29.4	10	30.0					
turquoise	343	27.7	18	27.8					
turtle	382	68.3	17	35.3					
tusk	308	31.2	8	37.5					
tussle	308	43.8	8	25.0					
tweed	396	16.2	19	26.3					
twelve	308	69.5	8	37.5					
twenty	320	72.2	9	55.6					
twice	382	46.9	17	29.4					
twig	347	33.7	12	25.0					
twilight	307	24.4	8	37.5					
twin	382	64.7	17	29.4					
twine	383	30.5	22	22.7					
twine	379	29.0	5	20.0					
twinkle	371	42.6	14	42.9					
twirl	347	40.3	12	8.3					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
ugly	360	50.6	16	37.5	under	377	57.3	15	40.0
umbrella	360	55.0	16	37.5	underbrush	366	29.8	17	17.6
unable	367	45.2	16	25.0	underbrush	400	26.5	12	33.3
unarm	397	31.0	16	25.0	undercover	366	27.0	17	17.6
unattended	378	47.6	13	30.0	underestimate	360	22.8	16	18.8
unattractive	369	37.7	13	15.4	underground	377	21.8	20	15.0
unaware	410	35.6	24	25.0	underground	354	60.5	12	33.3
unbecoming	303	40.0	15	26.7	undergrowth	377	39.3	20	15.0
unbelief	369	33.9	13	23.1	underlie	307	45.3	8	12.5
unbelieving	374	41.2	17	35.3	underneath	372	30.4	15	20.0
unborn	369	52.6	13	23.1	underneath	394	42.9	16	50.0
unbutton	369	41.5	13	15.4	undershirt	314	41.1	13	44.2
uncertain	311	27.7	11	27.3	underside	377	36.9	20	20.0
uncertainty	370	30.2	13	30.0	underside	314	44.6	13	38.5
unchangeable	302	34.1	12	41.7	underrated	396	34.1	19	26.3
unchanged	369	36.0	13	23.1	undiscovered	397	28.5	16	23.0
unchecked	377	39.5	15	13.3	undivided	394	29.9	16	23.0
unclasp	377	32.1	15	13.3	undo	394	31.2	16	37.5
uncle	376	66.2	19	52.6	undo	374	53.5	18	44.4
unclean	377	56.2	15	40.0	undress	394	52.8	16	23.0
uncomfortable	394	30.6	16	25.0	undress	394	38.6	16	43.8
uncommon	377	34.7	15	13.3	unearth	366	36.6	17	23.5
unconcerned	394	41.4	16	31.3	uneasily	374	34.5	17	29.4
unconscious	366	28.1	17	11.8	uneducated	308	39.3	8	12.5
uncover	371	45.3	14	35.7	unemployed	358	42.2	21	19.0
uncultivated	377	30.0	15	26.7	unending	358	33.8	21	47.6

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
unequal	358	44.1	21	33.3	unbedded	366	24.3	17	23.5
uneven	358	27.9	21	23.8	unhurt	366	52.5	17	41.2
unexpected	383	37.3	15	6.7	uniform	379	47.9	18	16.7
unexplored	379	43.5	5	20.0	unimportant	396	38.1	19	47.4
unfailing	383	48.0	15	26.7	uninjured	390	39.5	17	17.6
unfair	311	42.4	11	36.4	uninterrupted	390	43.1	17	52.9
unfamiliar	308	39.0	8	50.0	uninvited	390	42.3	17	23.5
unfasten	347	30.3	12	16.7	union	390	38.7	17	11.8
unfelt	395	31.9	16	25.0	unite	390	33.3	17	23.5
unfit	307	45.0	8	12.5	universe	378	26.2	13	38.5
unfold	320	42.8	7	14.3	university	369	45.3	13	30.8
unforgettable	390	30.5	17	17.6	unkind	383	53.5	22	18.2
unfortunate	364	35.4	16	6.3	unkindness	374	34.5	18	22.2
unfriendly	371	56.6	14	7.1	unknown	390	39.0	17	29.4
ungovernable	400	40.3	12	33.3	unlace	390	31.3	17	23.5
ungracious	383	41.0	22	18.2	unlawful	291	40.2	5	.0
ungrateful	399	43.4	11	27.3	unlearned	383	53.0	21	9.5
unguarded	383	42.3	21	19.0	unless	383	31.9	21	9.5
unhappily	382	27.0	17	17.6	unlike	402	45.2	21	33.3
unhappy	363	46.0	13	38.5	unlikely	371	41.8	18	27.8
unhappily	374	69.3	18	11.1	unload	394	59.4	16	43.8
unhappily	383	44.4	21	42.9	unlock	366	28.7	17	.0
unhappily	374	47.1	18	16.7	unloose	355	48.5	17	35.3
unhappily	383	50.9	21	19.0	unlovely	366	51.1	17	17.6
unhappily	374	47.6	18	5.6	unlucky	390	27.9	17	29.4
unhappily					unmanly				

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
unmarried	383	30.8	21	4.8	unseen	372	31.5	15	26.7
unmask	374	28.3	18	5.6	unselfish	372	34.7	15	26.7
unmerciful	394	32.2	16	18.8	unsettled	376	36.7	19	47.4
unmoved	371	23.7	15	20.0	unsettled	381	33.6	6	16.7
unnamed	374	52.4	18	22.2	unkilled	371	30.2	15	26.7
unnatural	373	42.4	14	35.7	unspotted	374	27.0	18	0
unnoticed	372	38.7	15	46.7	unsteady	384	24.5	18	22.2
unopened	366	49.5	17	5.9	unsuccessful	374	46.0	18	11.1
unofficial	395	40.0	16	18.8	unsuitable	371	35.3	16	25.0
unorganized	372	31.2	15	13.3	unsuspected	358	36.6	21	33.3
unpack	394	44.9	16	37.5	unsuspecting	374	38.0	18	22.2
unpaid	372	43.8	15	33.3	untaught	366	51.9	17	11.8
unpleasant	302	52.3	12	16.7	untidy	372	34.4	15	26.7
unpopular	372	33.3	15	13.3	uncle	373	39.4	14	7.1
unprepared	372	36.0	15	26.7	until	360	50.0	16	37.5
unprotected	372	44.1	15	20.0	untiring	319	33.9	12	25.0
unqualified	382	15.7	17	17.6	unto	374	46.0	17	35.3
unquestionable	347	23.6	12	16.7	untouched	372	30.1	15	53.3
unreal	340	50.0	12	33.3	untried	332	43.7	10	19.0
unreasonable	320	28.4	9	11.1	untroubled	307	39.1	8	12.5
unreliable	369	36.3	20	25.0	untrue	364	47.5	14	14.3
unrest	373	31.1	14	35.7	unused	364	28.6	16	18.8
unripe	307	31.3	14	42.9	unusual	374	30.7	17	41.2
unroll	377	28.1	20	15.0	unwelcome	362	47.5	16	37.5
unsatisfactory	398	37.7	16	18.8	unwilling	365	47.9	14	35.7
unsatisfied	367	37.3	16	25.0	unwise	404	42.1	13	46.2
unscrew	365	35.6	14	28.6					

	TOTAL		AGE 7			TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
unworthy	379	40.1	5	.0	used	360	36.4	16	31.3
unwrap	309	41.1	9	22.2	useful	376	55.9	16	37.5
up	404	44.8	13	15.4	useless	364	43.4	16	18.8
uphill	371	46.1	12	33.3	usher	366	36.6	17	23.5
upholster	308	40.6	8	12.5	utensil	360	26.9	16	25.0
upholstery	307	23.1	8	12.5	utmost	381	23.6	6	33.3
upland	366	50.3	17	35.3	utter	400	24.3	12	25.0
upon	364	42.6	14	14.3					
upper	381	47.5	6	33.3					
uppermost	375	42.4	15	26.7					
upright	320	50.0	7	71.4					
uprising	376	26.9	23	26.1					
uproar	374	42.0	18	5.6					
uproot	343	30.6	18	22.2					
upset	383	36.0	21	47.6					
upside	379	58.3	5	40.0					
upstairs	354	57.1	17	29.4					
upstream	379	30.3	5	20.0					
upturn	369	36.3	13	15.4					
upward	369	47.7	13	15.4					
urge	320	22.8	9	22.2					
urgent	369	36.9	13	23.1					
urine	379	31.9	5	40.0					
us	380	73.7	13	30.8					
useable	379	32.7	5	20.0					
use	367	49.6	16	12.5					

	TOTAL		AGE 7			TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
vacancy	311	34.7	11	27.3	vengeance	378	42.1	12	16.7
vacant	390	29.2	17	11.8	venison	383	13.8	22	18.2
vacate	383	29.2	22	18.2	ventilate	404	18.3	13	15.4
vacation	376	41.5	16	56.3	venture	366	26.0	17	23.5
vaccination	376	24.7	16	25.0	venturesome	366	19.9	17	23.5
vaccine	394	31.7	16	50.0	veranda	383	20.4	22	36.4
valentine	371	56.9	12	41.7	verb	377	47.5	20	45.0
valuable	394	35.5	16	37.5	verdict	390	30.5	17	35.3
value	380	33.4	13	7.7	verse	377	35.3	20	20.0
van	366	33.3	17	17.6	versus	377	30.2	20	15.0
vanish	383	27.2	22	27.3	very	291	74.6	5	.0
variety	307	24.4	8	12.5	vesicle	390	28.2	17	29.4
various	319	25.4	12	25.0	vest	376	34.3	23	39.1
varnish	341	29.3	12	8.3	veterinarian	376	42.0	19	21.1
vase	377	40.1	20	15.0	vibrate	377	35.8	20	20.0
vase	378	27.0	12	16.7	vibration	371	44.5	14	21.4
					vibrant	397	27.2	16	31.3
					vicious	376	36.2	19	15.8
vegetable	384	68.2	18	22.2	victim	376	29.5	23	13.0
vegetation	377	44.8	15	13.3	victor	371	32.3	14	28.6
vehicle	384	31.5	18	16.7	victorious	383	44.6	22	18.2
well	376	29.5	19	10.5	victory	308	33.1	8	50.0
voln	376	19.4	19	26.3	view	383	37.3	22	18.2
					village	383	51.4	22	31.8
velvet	383	37.9	15	20.0	villain	383	27.2	22	18.2
velvety	379	36.4	5	40.0	vine	320	40.0	7	28.6

	TOTAL		AGE 7			TOTAL		AGE 7	
	Freq.	$\bar{x}$	Freq.	$\bar{x}$		Freq.	$\bar{x}$	Freq.	$\bar{x}$
vinegar	364	41.2	14	21.4	voter	378	55.0	12	16.7
vineyard	397	37.3	16	18.8	vow	350	34.1	15	13.3
violete	384	26.8	18	16.7	voyage	366	44.6	17	23.5
violence	371	35.3	14	35.7					
violent	374	28.3	18	5.6					
violenc	383	44.9	22	9.1					
violinist	371	45.0	15	26.7					
vise	377	20.7	20	25.0					
visible	371	32.3	14	21.4					
vision	291	47.8	5	.0					
vistic	291	69.8	5	20.0					
visitor	363	53.3	21	38.1					
visor	371	17.0	15	20.0					
visual	291	42.6	5	.0					
vitamin	395	44.0	16	25.0					
vocabulary	390	49.7	17	17.6					
vocal	383	40.5	21	4.8					
voice	296	54.1	10	20.0					
voiceless	383	39.7	22	9.1					
volcanic	355	35.8	17	23.5					
volt	355	33.5	17	29.4					
volume	390	29.5	17	17.6					
voluntary	383	27.9	22	4.5					
volunteer	383	36.3	22	27.3					
vomit	377	26.8	20	20.0					
vote	390	55.4	17	29.4					

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	%	Freq.	%		Freq.	%	Freq.	%
wed	390	30.5	17	29.4	wander	376	37.5	19	21.1
weddie	399	37.3	11	27.3	wanderer	377	33.4	20	20.0
wade	383	49.1	21	28.6	went	383	52.2	22	9.1
wafer	291	38.1	5	.0		374	20.6	18	16.7
waffle	378	41.0	12	41.7	warbler	382	20.4	17	23.5
wag	390	36.4	17	29.4	ward	302	22.6	12	8.3
wage	397	34.0	13	38.5	wardrobe	305	52.5	13	23.1
wager	374	23.3	18	27.8	warehouse	305	52.5	13	23.1
wagon	374	54.5	18	11.1	warfare	365	47.7	14	35.7
waile	377	31.3	15	20.0	warm	365	40.5	14	21.4
waist	377	46.4	20	5.0	warmth	375	48.5	15	20.0
wait	366	63.4	17	17.6	warn	291	72.2	5	20.0
waiter	366	27.3	17	5.9	warning	354	42.7	12	16.7
waitress	383	50.9	21	33.3	warrior	398	48.7	21	19.0
wake	383	60.8	22	18.2	warship	383	37.9	22	13.6
wakeful	375	54.9	15	40.0	wart	355	38.3	17	5.9
waken	366	48.1	17	.0	wash	314	77.1	13	38.5
walk	374	72.2	18	16.7	washbowl	376	54.3	19	36.8
walker	374	60.2	18	11.1	washer	394	57.4	16	43.8
wall	374	53.7	18	5.6	washer	395	17.7	16	37.5
wallet	374	50.8	18	33.3	washing	332	63.9	10	30.0
wallow	390	29.2	17	11.8	washroom	354	61.0	12	8.3
wallow	374	23.3	18	16.7	wasp	332	45.8	10	10.0
walnut	376	46.0	19	26.3	waste	347	45.2	12	33.3
walrus	319	38.9	12	16.7	wasteful	410	40.2	24	12.5
waltz	377	32.6	20	20.0	watch	397	72.3	13	30.8
wand	374	31.0	18	22.2					

	TOTAL		AGE 7			TOTAL		AGE 7	
	Freq.	7	Freq.	7		Freq.	7	Freq.	7
watchdog	302	40.7	12	41.7	wearsome	371	24.5	16	12.5
watchful	307	30.9	8	25.0	weary	397	29.2	16	50.0
watchman	358	38.5	15	.0	wasel	371	28.6	16	31.3
watchtower	373	53.9	14	35.7	weathercock	291	37.8	5	20.0
watchword	320	35.0	9	55.6	weave	354	32.5	12	8.3
waterfall	308	51.9	8	37.5	weaver	364	37.1	16	25.0
waterproof	340	47.4	12	16.7	web	377	46.7	15	33.3
waterway	365	63.8	14	50.0	wed	358	43.9	15	13.3
waterworks	397	47.1	16	50.0	wedge	308	42.5	8	12.5
waterfy	396	41.2	19	21.1	wednesday	398	75.6	16	31.3
watt	369	35.8	20	5.0	wed	366	39.1	17	47.1
wave	390	49.2	17	23.5	weed	340	53.5	12	16.7
wavy	383	38.1	22	18.2	weedy	381	47.2	6	.0
waxen	302	40.7	12	25.0	week	332	70.8	10	40.0
way	305	56.7	13	.0	weekend	313	77.3	13	53.8
wayside	369	53.1	13	15.4	weekly	308	61.0	8	37.5
we	347	48.7	12	8.3	weep	354	30.7	12	8.3
weak	371	59.3	14	7.1	weigh	371	56.6	14	21.4
weakly	307	51.8	8	50.0	weight	303	55.4	22	9.1
weaking	366	48.1	17	29.4	weighty	313	58.5	13	30.8
weakness	308	35.1	8	50.0	weird	364	26.4	16	18.8
wealth	320	37.8	7	14.3	welcome	402	39.3	18	22.2
wealthy	369	35.2	20	15.0	welfare	343	25.9	18	27.8
wean	308	38.3	8	37.5	well	358	31.8	21	19.0
weapon	381	34.6	6	33.3	welt	376	21.3	16	18.8
wear	380	53.2	13	7.7	west	366	47.8	17	41.2
wearily	404	29.2	13	46.2	westerly	383	34.5	15	20.0
					western	372	45.7	15	26.7

WORD	TOTAL		AGE 7			TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
wet	308	62.7	0	50.0	whisper	358	43.9	15	6.7
whack	307	45.9	0	37.5	white	296	60.1	10	70.0
whale	379	57.3	5	40.0	wilten	379	43.0	5	40.0
whalebone	376	50.5	23	30.4	whittle	311	24.1	11	9.1
whaler	364	44.0	16	18.6	who	376	57.7	19	21.1
wharf	376	35.1	23	39.1	whoever	311	50.0	11	36.4
wheat	376	50.8	23	26.1	whole	369	40.4	13	15.4
wheel	376	56.9	23	13.0	wholesome	394	34.5	16	31.3
when	376	63.0	23	39.1	whom	309	55.0	9	22.2
whenever	383	43.6	22	10.2	whoop	371	41.8	16	6.3
where	377	63.9	20	40.0	whose	350	60.6	15	6.7
whereabouts	374	46.5	18	16.7	why	366	50.5	17	5.9
whereupon	366	35.0	17	17.6	wick	332	23.0	10	40.0
wherever	374	55.9	18	33.3	wicked	307	36.5	8	25.0
which	366	41.3	17	23.5	wickedness	379	32.2	5	40.0
whichever	355	26.0	17	23.5	wide	378	46.6	12	8.3
whiff	390	33.3	17	41.2	widen	366	31.7	17	29.4
while	303	45.7	15	13.3	widow	397	40.3	13	15.4
whimper	366	27.3	17	23.5	widch	377	38.2	20	15.0
whine	358	26.0	15	13.3	winner	383	41.5	22	18.2
whip	376	30.3	23	30.4	wings	291	29.9	5	.0
whirl	332	34.3	10	40.0	wings	366	32.0	17	11.8
whirlpool	377	54.4	15	33.3	wildcat	332	60.8	10	20.0
whirlwind	311	53.4	11	18.2	wilderness	366	35.8	17	23.5
whisk	376	27.4	23	21.7	wildfire	378	44.2	12	41.7
whisker	394	29.7	16	12.5	will	366	48.9	17	23.5
					willing	397	40.6	13	38.5

WORD	TOTAL		AGE 7		WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
willow	376	33.0	19	21.1	withdraw	378	30.7	13	38.5
win	371	36.8	14	14.3	withher	296	24.0	10	40.0
wind	371	79.2	14	20.6	withhold	399	32.1	11	36.4
wilt	374	29.7	18	27.8	withln	302	44.0	12	33.3
windpipe	379	31.1	5	40.0	without	308	48.4	8	.0
window	307	58.3	8	12.5	withstand	305	32.1	13	7.7
windowpane	376	48.1	23	13.0	witness	305	27.2	13	30.8
windmill	400	57.8	12	41.7	witcy	354	32.8	12	.0
windsheld	355	27.9	17	23.5	wizard	399	45.9	11	18.2
windy	378	60.8	13	46.2	wolf	399	62.4	11	45.5
wine	320	46.3	9	44.4	woman	371	64.4	16	.0
wine	366	62.5	17	11.8	womanhood	399	52.1	11	63.6
wink	360	44.4	16	25.0	womanly	410	52.0	24	8.3
winner	366	54.4	17	29.4	wonder	347	33.1	12	16.7
winter	380	62.1	13	23.1	wonderful	402	47.3	18	27.8
wintery	291	37.8	5	.0	wood	341	53.4	12	25.0
wipe	291	46.7	5	20.0	woodchuck	399	49.4	11	9.1
wire	309	45.6	9	22.2	woodcraft	398	49.7	16	18.8
wireless	382	39.5	17	17.6	woodcutter	398	69.3	21	33.3
wisdom	369	30.9	20	25.0	wooded	410	60.5	24	16.7
wisecrack	308	33.1	8	12.5	wooden	410	40.7	24	16.7
wish	369	49.1	20	20.0	woodland	305	73.6	13	38.5
witch	379	64.4	5	20.0	woodpecker	347	67.4	12	41.7
witchcraft	343	45.5	18	16.7	woodwork	313	66.1	13	30.8
witch	296	37.5	10	20.0	woody	313	69.6	13	46.2
withdraw	378	29.4	13	23.1	wool	296	54.7	10	30.0
					woodsman	358	52.8	21	38.1

Word	TOTAL		AGE 7		Word	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z		Freq.	Z	Freq.	Z
woolen	399	48.1	11	27.3	wrench	374	33.7	14	35.7
woolly	363	42.4	13	7.7	wrestle	365	37.5	14	7.1
workman	382	55.5	17	35.3	wrestler	374	47.1	14	35.7
workmanship	395	45.6	16	31.3	wriggle	398	40.2	16	.0
workroom	358	67.9	21	42.9	wring	305	28.5	13	7.7
workshop	313	38.0	13	30.8	wringer	395	31.9	16	43.8
world	372	55.6	15	33.3	wrinkle	296	13.9	10	40.0
worm	313	58.1	13	46.2	wrist	302	42.1	12	16.7
worn	398	33.7	16	18.8	write	343	75.2	18	33.3
worry	374	46.3	14	21.4	writer	395	34.4	16	31.3
worse	399	32.1	11	18.2	wrong	397	57.7	16	43.8
worship	358	30.4	21	23.8					
worshipper	402	36.8	18	27.8					
worst	313	35.5	13	30.8					
worth	398	34.7	16	25.0					
worthless	372	41.9	15	40.0					
wound	358	33.2	21	19.0					
wrap	374	42.8	14	28.6					
wrapper	354	42.9	12	8.3					
wreath	395	31.4	16	50.0					
wretch	375	29.1	15	6.7					
wretched	369	28.5	20	25.0					
wreck	399	42.4	11	9.1					
wreckage	347	38.0	12	16.7					
wren	397	33.8	16	43.8					
wrench	399	35.3	11	9.1					

WORD	TOTAL		AGE 7	
	Freq.	Z	Freq.	Z
xylophone	374	42.0	17	52.9

Word	TOTAL		AGE 7	
	Freq.	%	Freq.	%
yacht	355	20.6	17	35.3
yam	355	25.9	17	5.9
yank	364	36.5	16	43.8
yard	355	58.6	17	41.2
yarn	384	48.4	18	50.0
yawn	364	36.3	16	12.5
year	354	72.6	17	23.5
yearly	355	50.1	17	29.4
yearn	355	26.5	17	23.5
yeast	374	33.4	14	28.6
yell	364	43.1	14	28.6
yellow	378	82.3	13	53.8
yesterday	374	69.0	14	14.3
yat	384	31.3	18	27.8
yoke	364	16.2	16	12.5
yoke	384	24.2	18	22.2
yolk	376	46.0	19	36.8
you	376	58.5	23	39.1
young	376	62.5	16	31.3
younger	404	48.5	13	7.7
your	373	41.0	14	7.1
youth	384	49.5	18	16.7
youthful	358	40.2	21	33.3

WSP	TOTAL		AGE 7	
	Freq.	%	Freq.	%
zcbra	364	69.2	16	12.5
zcto	398	57.3	21	28.6
zlgzcg	371	30.7	14	7.1
zinc	383	31.6	22	27.3
zoo	354	69.5	17	23.5
zong	384	31.3	18	22.2